JOHN N. HUGHES

Attorney at Law
Professional Service Corporation
124 WEST TODD STREET
FRANKFORT, KENTUCKY 40601

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JUL 0 1 2005

PUBLIC SERVICE

Telecopier: (502) 875-7059

Telephone: (502) 227-7270

July 1, 2005

Beth O'Donnell Executive Director Public Service Commission 211 Sower Blvd. Frankfort, KY 40601

Case No. 2005-00148

Dear Beth:

This is in response to your letter of June 13, 2005 asserting that there are certain deficiencies in the application filed by Northern Kentucky Water District. The deficiencies seem to relate to construction projects that the district has listed as being included in the proposed issuance of debt. Four projects listed in Exhibit O indicate that a certificate of convenience and necessity is required. Item 5, the Poplar Ridge Project has had an application for a certificate previously filed on May 13, 2005, Case No. 2005-00200. Two projects, Items 14 and 16 were incorrectly included in the list and should be disregarded. Item 8 referred to as the Grand Avenue project requires a certificate. All plans, specifications and other information regarding that project are being filed with this response, except the DOW permit. The District requests that the filing be accepted pending the receipt of that permit, which will be submitted when received.

The District is resubmitting Exhibit M, the proposed tariffs, with an effective date of August 1, 2005, Exhibit R, the project list, which has been corrected to delete the certificate projects and revised to include the appropriate ordinary extension projects, and Exhibit R, which is the corrected Five Year project list. Because of minor differences in projected costs, rounding, etc. the total corrected Rate Case Project total construction cost is \$25,276,500. This difference between the requested financing and the corrected construction costs in insignificant and has no impact on the rates requested.

If there are any questions about this, please contact me.

of Markey

Attorney for Northern Kentucky Water District

Attachments

CC: Attorney General

GRAND AVENUE PROJECT

Northern Kentucky Water District Case No. 2005-00148 Item 8, Exhibit O

Permits and Franchises: Awaiting DOW approval.

Description of project: Plans and Specifications attached.

Maps: Attached

Estimated cost after construction: Because the facilities are new, there will be little if any

maintenance or cost for a number of years.

Start date of construction: September, 2005.

Proposed in service date: January, 2006.

CWIP at the end of the test year is included in Exhibits K and N.

Plant retirements are included in the PSC Annual Report.

The original cost of plant is included in the PSC Annual Report. No salvage values are booked.

The depreciation study is not completed and a deviation for its filing has been requested.

Operating budgets for each month are not maintained. Monthly financial reports have been filed in Exhibit I.

(10/84)

KENTUCKÝ PUBLIC SERVICE COMMISSION

MAIN CASE FILE NOTES

2005-00148-Northern KYWater - 7-1-05
map is located in
Map Holder
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PUBLIC SERVICE COMMISSION

FOR NKWD Area Served PSC No. 3 Sheet No. 1 Canceling PSC No. 2 Canceling Sheet No. 1

NORTHERN KENTUCKY WATER DISTRICT

RATES,

RULES

AND

REGULATIONS

Date of Issue:

July 1, 2005

Issued by:

Officer & Title Royald J. Barrow, M.P.A

Vice President - Finance

Date Effective:

August 1, 2005

100 Aqua Drive, Cold Spring, Ky 41076

FOR NKWD Area Served PSC No. 3 Sheet No. 2 Canceling PSC No. 2 Canceling Sheet No. 2

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Date of Issue:

July 1, 2005

Date Effective:

August 1, 2005

Issued by: ____Officer & Title

Ronald J. Barrow, M.P.A. Vice President - Finance 100 Aqua Drive, Cold Spring, Ky 41076

FOR NKWD Area Served PSC No. 3 Sheet No. 3 Canceling PSC No. 2 Canceling Sheet No. 3

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Date of Issue:

July 1, 2005

Date Effective:

August 1, 2005

Issued by: ____ Officer & Title Ronald J. Barrow, M.P.A. Vice President - Finance

100 Aqua Drive, Cold Spring, Ky 41076

FOR NKWD Area Served PSC No. 3 Sheet No. 4 Canceling PSC No. 2 Canceling Sheet No. 4

Comment: Change

- Water will be turned on and off only by an authorized employee of the Water District.
- 2. No application for water service will be approved and no water shall be supplied to any applicant or customer where the applicant or customer is delinquent or indebted to the Water District. This section will apply whether the delinquency or indebtedness is incurred at the premises for which application is made or at any other premises or property.
- No connection into more than one building shall be made from any one tap unless the District has given its approval in writing
- 4. No attachment shall be made to any service connection or to any pipe or other fixture which has been shut off without written permission from the District. Similarly, no water will be taken from any service connection, which has not been used, without written permission.
- 6. The original purchase and installation of a meter shall be made by the District at the applicant's expense. The District shall retain possession of and maintain all meters to the customer with the exception that if a meter should be destroyed or damaged through negligence of the customer, the replacement or repair shall be charged to the customer. Failure to pay this charge will result in the discontinuance of water service.
- 7. It shall not be permitted for any customer of the District to have the piping within a structure cross connected to any other source of water supply.
- 8. Authorized employees of the District shall have the right at reasonable times to enter any premises where a meter is installed for the purpose of reading, examining, changing, inspecting or testing the meter. Should access not be provided, the District may require the customer to pay for all costs associated with moving the meter to an outside setting.
- 9. No person shall waste water by leaving open a fire hydrant or other device connected to the waterworks system.
- 10. No person other than one authorized by the District may use any property or make attachments to any water pipes belonging to the District.
- 11 Except for fire departments, no person other than an employee of the Water District may use any fire hydrant on the water system without first having secured a permit, a regulation fire hydrant spanner wrench and a fire hydrant meter from the Water District.

Date of Issue:	July 1, 2005	Date Effective:	August 1, 2005
ssued by:		100 Aqua Drive,	Cold Spring, Ky 41076
Officer & Title	Ronald J. Barrow, M.P.A. Vice President - Finance	•	

FOR NKWD Area Served PSC No. 3 Sheet No. 5 Canceling PSC No. 2 Canceling Sheet No. 5

SECTION I - GENERAL PROVISIONS - Cont'd

- 12. No person other than an authorized employee of the District shall remove a meter without permission from the District. If a meter is removed or an unauthorized device is located in the setting a service charge will be required and the unauthorized device will be removed and confiscated by the District
- 13. When a meter has been lawfully removed, it shall be unlawful to use water supplied by the service connection to which the meter was attached. If unlawful water is used an estimated usage will be calculated at the current District rate schedule and a service charge would be required.
- 14. When a meter has been found to have been unlawfully removed, water service shall be discontinued and not restored until payment has been made for the estimated amount of water used, any fine that may be imposed, and the payment of the service charge as outlined in Section IV.
- 15. The normal billing cycle for NKWD is a quarterly basis, except for Sub district accounts. If a customer wishes to change from quarterly to monthly cycle the following criteria must be met:
 - Submit a written request along with an explanation of why the billing change is needed. This will
 be reviewed by the District on a case by case basis
 - The average quarterly consumption must be a minimum of 2000 Hundred Cubic Feet per quarter
- 16. No person, firm, or corporation shall use or make a connection to use water from a service connection or any other available source of water unless authorized by the District. Any connections, hoses, wrenches, or appurtenances attached to any connection without permission by the District shall be immediately confiscated by any employee of the District and the proper legal authority will be notified for the theft of service. In addition, where no permission was granted and there is no way to determine actual water usage, an estimated bill will be calculated based on an amount equal to one month average usage based on the previous 12 month consumption using the current District rate structure. The estimated bill along with a service charge would need to be paid in order to have the water service reinstated.

SECTION 1A – DEFINITIONS

Comment: New

- "Distribution main" means a line from which service connections with customers are taken at frequent intervals.
- "Meter" means any device used for the purpose of measuring the quantity of water delivered by a utility to a customer.
- 3. "Point of service" means the outlet of a customer's water meter, or valve if no meter is placed.
- 4. "Service connection" means the line from the main to the customer's point of service and shall include the pipe fittings and valves necessary to make the connection.
- 5. "Service line" means the water line from the point of service to the place of consumption.

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FOR NKWD Area Served PSC No. 3 Sheet No. 6 Canceling PSC No. 2 Canceling Sheet No. 6

SECTION II - RETAIL WATER RATES

Northern Kentucky Water District Service Area

1. Monthly Service Rate

First	1,500 cubic feet	\$2.86 per 100 cubic feet		Comment: Increase
Next	163,500 cubic feet	\$2.48 per 100 cubic feet		Comment: Increase
Over	165,000 cubic feet	\$2.32 per 100 cubic feet		Comment: Increase
Customers	in Subdistrict A *shall be assessed a	monthly surcharge in the amount of	\$11.06	Comment: Reduction
Customers	in Subdistrict B *shall be assessed a	monthly surcharge in the amount of	\$19.98	Comment: Reduction
Customers	in Subdistrict C *shall be assessed a	monthly surcharge in the amount of	\$21.65	Comment: Reduction
Customer i	n Subdistrict D *shall be assessed a m	nonthly surcharge in the amount of	\$30.00	
Customers	in Subdistrict E *shall be assessed a	monthly surcharge in the amount of	\$30.00	
Customers	in Subdistrict R *shall be assessed a	monthly surcharge in the amount of	\$18.89	Comment: Reduction

Customers in Subdistrict RF *shall be assessed a monthly surcharge in the amount of \$30.00

Customers in Subdistrict RL *shall be assessed a monthly surcharge in the amount of \$37.50

- *Subdistrict charges are reviewed annually.
- *Detailed street listing within each Subdistrict can be found under Appendix A.
- *Service connections on extensions or laterals from a Subdistrict street will be assessed the appropriate Subdistrict charge.

2. Quarterly Rates

First	4,500 cubic feet	\$2.86 per 100 cubic feet	Comment: Increase
Next Next	490,500 cubic feet 495,000 cubic feet	\$2.48 per 100 cubic feet \$2.32 per 100 cubic feet	Comment: Increase
Next	493,000 cubic feet	\$2.52 per 100 cubic rect	Comment: Increase

3. Fixed Service Charge

Matau Cima	Monthly Service Charge	Ouarterly Charge	Comment: Increase
Meter Size	Monthly Service Charge	Quarterry Charge	Comment: Increase
5/8"	\$11.76	\$17.24	Comment: Increase
3/4"	\$12.13	\$18.10	Comment: Increase
1"	\$13.15	\$20.67	
1 1/2"	\$14.75	\$24.16	Comment: Increase
2"	\$18.39	\$33.58	Comment: Increase
3"	\$42.91	\$102.29	Comment: Increase
4"	\$53.66	\$128.15	
6"	\$79.35	\$188.64	Comment: Increase
8"	\$106.92	\$257.34	Comment: Increase
10" and Larger	\$142.39	\$335.72	Comment: Increase

Date of Issue: July 1, 2005 Date Effective: August 1, 2005

Issued by: _______ 100 Aqua Drive, Cold Spring, Ky 41076

Officer & Title Ronald J. Barrow, M.P.A. Vice President - Finance

FOR NKWD Area Served PSC No. 3 Sheet No. 7 Canceling PSC No. 2 Canceling Sheet No. 7

SECTION III - WHOLESALE WATER SALES

Comment: Increase

Bullock Pen Water District

\$2.59 per 1,000 gallons (or) \$1.80 per 100 cubic feet

Comment: Increase

City of Walton

\$2.59 per 1,000 gallons (or) \$1.80 per 100 cubic feet

Pendleton County

\$2.59 per 1,000 gallons (or) \$1.80 per 100 cubic feet

Comment: Increase

SECTION IV – MISCELLANEOUS SERVICE FEES

Comment: Change

Returned Check Charge

20.00

3.50 per 1,000 gallons Water Hauling Station

25.00

Service Charge (formerly called Reconnection Fee) Overtime Charge

Vice President - Finance

40.00

SECTION V - CUSTOMER BILL OF RIGHTS

As a residential customer of a regulated public utility in Kentucky, you are guaranteed the following rights subject to the Kentucky Revised Statutes and the provisions of the Kentucky Administrative Regulations:

- You have the right to service, provided you (or a member of your household whose debt was accumulated at your address) are not indebted to the utility.
- You have the right to inspect and review the utility's rates and tariff operating procedures during the utility's normal office hours. (8:00 AM to 5:00 PM, Monday through Friday).
- You have the right to be present at any routine utility inspection of your service conditions.
- You must be provided a separate, distinct disconnect notice alerting you to a possible disconnection of your service if payment is not received.
- You have the right to dispute the reasons for any announced termination of your service.
- You have the right to negotiate a partial payment plan when your service is threatened by disconnection for non-payment. If the outstanding arrears is less than \$150.00, you may apply for a payment plan not to exceed 30 days from the date of original cut-off date. If your arrears is over \$150,000, a payment for longer than 30 days can be arranged, but not to exceed 180 days in length. In both cases, the customer must apply for the payment agreement prior to termination, and 1/3 of the bill must be paid at the time arrangements are made.

Date Effective: August 1, 2005 Date of Issue: July 1, 2005 100 Aqua Drive, Cold Spring, Ky 41076 Issued by: Officer & Title Ronald J. Barrow, M.P.A.

FOR NKWD Area Served PSC No. 3 Sheet No. 8 Canceling PSC No. 2 Canceling Sheet No. 8

SECTION V - CUSTOMER BILL OF RIGHTS - Cont'd

- You have the right to maintain your utility service for up to thirty (30) days upon presentation
 of a medical certificate issued by a health official.
- You have the right to prompt (within 24 hours) restoration of your service when the cause for discontinuance of the service has been corrected.
- You have the right to contact the Public Service Commission regarding any dispute that you have been unable to resolve with your utility. CALL TOLL FREE 1-800-772-4636.

SECTION VI – MONITORING OF CUSTOMER USAGE

Comment: Change

At least once annually, the District will attempt to monitor the usage of each customer according to the following procedure.

- The customer's quarterly usage for the most recent quarter will be compared with the average quarterly usage for the four quarters immediately preceding that period.
- If the quarterly usage for the previous period is substantially the same as the average or if any difference is known to be attributed to unique circumstances, such as unusual weather conditions, common to all customers, no further review will be done.
- 3. If the quarterly usage differs from the average and is flagged by the billing system and the difference cannot be attributed to a readily identified cause, the District will send a Field Service Representative to reread the meter and investigate the potential cause of the increase in usage.
- 4. In addition to the quarterly monitoring, the District will immediately investigate usage deviations brought to its attention as a result of customer inquiry.
- 5. A reading must be obtained on all meters by a District employee, or an authorized person of the District, at least once during an annual basis. If access to the meter is not received, the District will notify the customer and service will be disconnected until access can be made to read the meter.

Date of Issue: July 1, 2005 Date Effective: August 1, 2005

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Officer & Title Ronald J. Barrow, M.P.A Vice President - Finance

FOR NKWD Area Served PSC No. 3 Sheet No. 9 Canceling PSC No. 2 Canceling Sheet No. 9

SECTION VII - PAYMENT PLAN AGREEMENTS

Comment: Change

The District offers the following payment plan agreements for customers who may have their service terminated for non-payment.

- 1. If the total arrears prior to termination is less than \$150.00, the customer may apply for up to a 30 day extension. The customer must pay 1/3 of the bill at the time of application.
- 2. If the total arrears prior to termination is greater than \$150.00, the customer may pay 1/3 of the bill and apply for a payment plan for longer than 30 days, but not to exceed 180 days. All new billing after the payment agreement and all payment agreement amounts must be paid on time.
- 3. Once a payment arrangement has been established, a letter is mailed to the customer outlining the payment arrangement date(s) and the payment arrangement amount(s). A copy of this letter is documented on the customer account.

If a customer is on a payment plan agreement and fails to make any one payment, the service will be terminated without notice and will not be reconnected until payment is made in full for all outstanding arrears.

The customer must apply for a payment plan agreement in advance of the termination date. Once the service has been terminated, a payment plan will not be offered.

Sample of Payment Plan letter is shown in Section XXIV.

SECTION VIII – PAYMENT OF BILLS

Comment: Change

- 1. Water bills (quarterly) shall become delinquent on the date indicated on the bill, thirty (30) days after the billing date. Once considered delinquent, a 10 percent late penalty charge will be included and shown on the bill as the gross amount or "pay this amount after the due date."
- 2. If the bill is not paid within 45 days after the billing date, a fifteen (15) day cut-off notice will then be issued.
- 3. Payment of monthly bills. Water bills shall become delinquent on the date indicated on the bill, which is 15 days after billing date. At that time, a 10 percent late penalty charge will be included and shown on the bill as the gross amount or "pay this amount after the due date."
- 4. For water users on a monthly billing schedule, if the bill is not paid within 16 days after the billing date, a ten (10) day cut-off notice will then be issued.

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	Vice President - Finance		

FOR NKWD Area Served PSC No. 3 Sheet No. 10 Canceling PSC No. 2 Canceling Sheet No. 10

SECTION VIII - PAYMENT OF BILLS - Cont'd

- 5. Any customer who has been delinquent, whether on a monthly or quarterly schedule or has refused to pay past bills, may be required to place a cash deposit with the District in an amount equal to 1/12 of the customer's annual bill where bills are rendered monthly or 1/4 of the annual bill where bills are rendered quarterly.
- 6. In the event that the water service is disconnected for nonpayment of bills or failure to comply with the District's Rates, Rules and Regulations, a service charge will be added to the bill and the customer will be required to pay the full amount due plus the service charge before the water service can be restored to said customer.

SECTION IX - ADJUSTMENT OF WATER BILLS

SECTION IN ADJUSTMENT OF WATER BILLS		
The District will allow for two types of leak adjustments.		
Type 1 – Underground leaks	Comment: Change	
In cases where it shall be found after an investigation that a leak is underground and not subject to detection by ordinary methods and where the customer if free from negligence in causing or failing to report the leak, the District will make an adjustment on the customer's bill for this type of leak.		
The customer is required to submit in writing a request for this type of adjustment. The written request must include the location of the leak and the date the leak was repaired		
This adjustment will be calculated on the billing period(s) that would be effected by the leak not to exceed two billings periods. The leak will be based on the customer's average bill plus one half of the lost water due to the leak		
Accounts are eligible for an underground leak adjustment of one per year with a limit of three leaks total Proof must be submitted verifying the service line has been replaced before a fourth adjustment will be approved.		
Type 2 – Unknown Leaks Resulting in a High Consumption	Comment: New	
An account is eligible for a one time courtesy adjustment for an unknown leak and/or unknown plumbing malfunction.		
 Accounts are eligible for this type of courtesy adjustment once every five years. The customer is required to submit a letter in writing requesting this type of adjustment stating the reason for the elevated consumption and why the origin was not found 		
• The adjustment will be calculated for one billing period and will be based on the customer's average bill plus one half of the lost water.		
• As a general rule, consumption should be in excess of 200% of the average consumption. Exceptions may be granted, however, on an individual case basis.		

This type of adjustment transfers with the customer to different locations.

FOR NKWD Area Served PSC No. 3 Sheet No. 11 Canceling PSC No. 2 Canceling Sheet No. 11

SECTION X – METER LOCATION AND REQUIREMENTS

Comment: Change

- 1. If the customer requests that the District relocate an existing outside meter setting to another outside location that is agreeable with the District, the customer will pay the relocation costs per the District's Invoice Billing Policy or the amount not to exceed the cost of a new service connection. If a customer requests to move a meter setting from an inside to an outside meter setting, the customer will pay the relocation charges per the District's Invoice Billing Policy. The customer is responsible for making the connection at the point of service in either case. Should the customer have multiple existing inside meters on a single service connection and requests that they be moved outside, the District may waive the relocation fee if the customer installs new individual service lines to the curb. Should there be multiple meter settings fed by a single service connection, the District may waive the relocation fee if one or all customers install a new service line to the curb. If only one customer installs a new service line to the curb, the existing service line to the buildings becomes the responsibility of the remaining party or parties
- 2. Where a meter is located within a building, it shall be the responsibility of the customer to maintain appropriate conditions to prevent physical or freezing damage to the meter. Meters shall be accessible to the District during normal business hours. If normal access to the meter is refused, the District shall require the meter be moved outside and all cost incurred shall be borne by the customer. If the customer fails to provide access to move the meter outside after 30 days written notice from the District, water service shall be discontinued and not turned on until the meter is moved outside. Should the meter be damaged, the District will replace the meter at a charge of the cost of the meter and time and material, and the customer will be billed per the District's Invoice Billing Policy. If the customer fails to pay the invoice by the stated date, water service will be discontinued until payment is received. The customer will also be required to pay the service charge as outlined in Section IV.
- 3. Where the meter is located within a building, the District's responsibility is the meter and meter connection nut only, and at no time will the District be responsible for any piping making connection to the meter.

SECTION XI – METER TEST

Comment: Change

- 1. All District meters will be tested at least every ten years as required by the Public Service Commission.
- The meter testing procedure and equipment will conform and be in accordance with all regulations set by the Public Service Commission.
- 3. Meters will be removed and tested for accuracy when requested by any customer provided that the customer or a representative of the customer accompanies the meter to the District testing location to witness the test or the customer fills out the form stating they do not want to witness the test. This form must be submitted to the office before the test is done. If the meter is within the allowable + or -2% accuracy, the customer will be charged for the cost of the test. For a 1" meter or smaller, the charge is \$30.00 per test. For meters larger than 1", the charge is the actual cost to the District for the test. In the event the meter accuracy varies more than two percent, the cost of the testing shall be borne by the District and a new or reconditioned meter will be installed at no cost to the customer. If the meter is more than two percent fast, a refund shall be computed on the basis of the percentage fast that the meter tested for a period not exceeding the previous 12 months.

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FOR NKWD Area Served PSC No. 3 Sheet No. 12 Canceling PSC No. 2 Canceling Sheet No. 12

SECTION XII - INVOICE BILLING POLICY

Work performed by District crews, equipment utilized and/or material supplied, will be invoiced and calculated as follows:

- a. Actual labor cost plus 40% of labor cost to cover labor overhead.
- b. Material cost plus 15% of material cost, plus sales tax when applicable.
- Equipment cost at 28% of labor cost before (40% is added).
- d. Overhead cost at 10% of labor cost before (40% is added).
- e. Any other cost incurred by the District for the job being invoiced

SECTION XIII- SERVICE CONNECTION INSTALLATIONS

Comment: Change

Any prospective water customer desiring water service and the installation of a service connection, should apply at the District office. The prospective customer shall, in signing a water service connection contract, agrees to be bound by all the provisions of these Rates, Rules and Regulations as they may be amended from time to time. No service connection shall be installed to serve property which does not abut the street or road on which the distribution main is located, without specific approval of the District. No service connection shall be tapped off a pre-stressed concrete distribution main, any distribution main 20" or larger, or any cross-county distribution main without the approval of the District. Every structure wherein water is used shall have a separate service connection and meter provided; however, a variation in this respect may be authorized by the District. The District reserves the right to specify the size of the service connection for each installation. When application for a service connection installation is made, a service connection fee shall be paid according to the following schedule:

5/8" connection \$ 750.00 1" connection \$ 1,100.00

1 1/2" and 2" service connection installations will be charged per the District's Invoice Billing Policy.

No service connection fees will be required for water service connections that are not installed by the District (eg. large meter pits, fire lines, etc). The only fees to the applicant will be the cost of the meter and meter appurtenances utilizing the District's Invoice Billing Policy.

FOR NKWD Area Served PSC No. 3 Sheet No. 13 Canceling PSC No. 2 Canceling Sheet No. 13

SECTION XIII- SERVICE CONNECTION INSTALLATIONS - Cont'd

- Upon request from a customer for an enlargement of a service connection, the service connection shall be considered as new and the price of a new service connection installation will be applicable for a 1" service or larger.
- 3. After the tapping fee has been paid, the District shall tap the distribution main and install the service connection from the distribution main to a meter setting and point of service, which will be located behind the curb or an area determined by the District to be placed in a manner that is safe to perform maintenance on such meter setting.
- 4. The service line from the point of service to the building shall be installed and maintained by the customer at no cost to the District. All service lines may be subject to inspection or approval by the District before water service will be turned on for use
- 5. In cases where the customer desires a water pressure other than that pressure provided by the District's distribution mains in the surrounding area, it shall be the responsibility of the customer to install the necessary devices to provide the desired pressure.
- 6. In cases where the meter has been installed, the customer shall pay rates specified herein.

SECTION XIII-A - SERVICE CONNECTION MAINTENANCE

Comment: Change

- 1. The District shall retain possession of and be responsible for the service connection from the distribution main to the point of service (curb stop), if applicable, or any piping material within the meter vault.
- Where a curb stop is applicable and the District determines that a leak is on the customer's service line beyond the point of service by shutting the curb stop off, the cost to repair such leak will be the responsibility of the customer.
- 3. Where a meter vault is applicable and the leak appears to be inside the meter vault, the District will be responsible to repair the leak. Where the leak appears to be beyond the point of service, the responsibility to repair the leak will be with the customer.
- 4. The District shall have the right to maintain its service connection to customer's point of service. In the event the service connection needs to be repaired or replaced, the District will reconnect to the customer's point of service. If the District is unable to reconnect to the customer's service line at the point of service, due to its condition, the District will notify the customer. The District will allow the customer reasonable time to make repairs to the service line, which will enable the District to reconnect its portion of the service connection. The District will make a temporary connection to the customer's service branch provided leaking water does not cause damage to personal or public properties and in no way causes a health or safety problem. If the customer does not make the repairs within a week of notification, the water is subject to be shut off.
- 5. If a customer notifies the District that they are replacing their service line from the point of service to the structure, the District may elect to replace its service connection, if it is lead or galvanized steel, from the distribution main to the service point at no cost to the customer.

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	Vice President - Finance		

FOR NKWD Area Served PSC No. 3 Sheet No. 14 Canceling PSC No. 2 Canceling Sheet No. 14

SECTION XIV-A - DISTRIBUTION MAIN EXTENSION POLICY OTHER THAN CONTRACTORS, DEVELOPERS & DISTRICT INITIATED DISTRIBUTION MAIN EXTENSIONS

Comment: Change

- 1. The District shall determine the total cost for a proposed distribution main extension (exclusive of the service connections) and the total length of the extension. The District shall pay that portion of the cost of the distribution main extension equal to 50 feet for each applicant for service. The part of the cost not covered by the District's portion shall be contributed equally by those applicants desiring a service connection on the distribution main extension. Each applicant will also be required to pay the District's approved service connection fee for a service connection to the distribution main extension.
- 2. For a period of five years after the original construction (distribution main placed in-service) of the distribution main extension, each additional customer that has a service connection to the extension, and not to laterals and extensions therefrom, will be required to contribute to the cost of the extension based on a re-computation of both the District's portion of the total cost and each customer's contribution as described above. Each year the District will refund to those customers that previously contributed to the cost of each distribution main extension that amount necessary to reduce their contribution to the currently calculated amount for each customer connected to the extension. All customers that have a service connection to the distribution main extension for a five-year period after it is placed in service are to contribute equally to the cost of construction of the extension.
- 3. In addition, each customer must pay the approved service connection fee applicable at the time of their application for the service connection. The service connection is not part of the refundable cost of the extension and may be changed during the refund period. After the five-year refund period expires, any additional customers applying for a service connection on each distribution main extension must be connected for the amount of the approved service connection fee only. It shall be the responsibility of the customers that have contributed to the distribution main extension, which may be entitled to a refund, to notify the District on the "change of address" form provided by the District of the customer's current address. Refunds will be sent to the address of record and if returned will be kept by the District until the District is notified of a current address. The total amount refunded shall not exceed the amount paid to the District.

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SECTION XIV-B – DISTRIBUTION MAIN EXTENSION POLICY CONTRACTORS AND DEVELOPERS

Comment: Text

- 1. A contractor or developer desiring a distribution main extension to a proposed real estate subdivision will be required to pay the entire cost of the extension. It is the contractor or developer's responsibility to notify the District prior to the start of construction so a cost for the extension can be determined and approved by the District. Each year for a refund period of five years after the distribution main is placed in-service, the District shall refund to the contractor or developer who paid for the extension a sum equal to the cost of fifty feet of the extension for each new customer connecting to the distribution main and not to extensions or laterals therefrom. It shall be the responsibility of the contractor or developer who paid for the extension to notify the District on the form provided with the original application papers of its current address. Refunds will be sent to the address on record and if returned will be kept by the District until the District is notified of a current address. The total amount refunded shall not exceed the amount paid by the applicant.
- No refund shall be made to the contractor or developer after the refund period ends. There is no refund to the contractor or developer for customers within the real estate subdivision itself.
- 3. Each new customer must pay the approved service connection fee applicable at the time of their application for the service connection. The service connection fee is not part of the refundable cost of the extension and may be changed during the refund period. After the five-year refund period expires, any additional customer applying for a service connection on a distribution main extension must be connected for the amount of the approved service connection fee only.

SECTION XIV-C – DISTRIBUTION MAIN EXTENSION POLICY FOR DISTRIBUTION MAIN EXTENSIONS INITIATED BY THE DISTRICT

Comment: Change

- 1. Where the District determines that a distribution main extension is feasible and desirable under established criteria, the District shall determine if sufficient interest among the property owners along the proposed distribution main extension exist to use Section XIV-A. If there is insufficient interest among the property owners to use Section XIV-A, the District shall use the following method. Each prospective customer desiring a service connection from the proposed distribution main extension shall pay for the cost equal to 100 feet of the proposed distribution main extension.
- 2. For a period of five years after the water main is placed in-service, each additional customer requesting a service connection to the extension, and not to laterals and extensions thereto, will be required to contribute the cost of 100 feet of the water line extension ("required contribution amount"). The required contribution amount will exclude the District's cost to upsize the water main beyond the minimum size required to meet the District's standards. If during this period the required contribution amount exceeds that required were the extension made pursuant to Section XIV-A, then the District will calculate the required contribution amount in accordance with Section XIV-A and will make refunds to all contributors in accordance with Section XIV-A. Five years after the distribution main is placed in-service, no further contributions will be required and no refunds will be made.

Date of Issue:	July 1, 2005	Date Effective:	August 1, 2005
ssued by:		100 Aqua Drive,	Cold Spring, Ky 41076
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SECTION XIV-C - DISTRIBUTION MAIN EXTENSION POLICY FOR MAINLINE EXTENSIONS INITIATED BY THE DISTRICT - Cont'd

3. In addition, each customer must pay the approved service connection fee applicable at the time of their application. The service connection fee is not part of the refundable cost of the extension and may be changed during the refund period. After the five-year period expires, any additional customer applying for service connection on each distribution main extension must be connected for the amount of the approved service connection fee only. It shall be the responsibility of the customers that have contributed to the distribution main extension, which may be entitled to a refund, to notify the District on the "change-of-address" form provided with the original application paperwork of the customer's up-to-date address. Refunds will be sent to the address of record and if returned will be kept by the District until the District is notified of a current address.

SECTION XV - SPECIAL CONTRACTS

The District reserves the right to provide special services for a user on a contract basis

SECTION XVI - LINE LOCATION POLICY

The District requires that all water main location requests be made in accordance with KRS 367.4901 to 367.4917. The District does not belong to a one call center and handles all locate requests in house. The District's normal hours for calling in locations are Monday through Friday 8:00 AM to 4:30 PM. If an emergency request is required after hours, the District provides an after-hours number that should be contacted.

SECTION XVII – ABANDONED DISTRIBUTION MAINS/ SERVICE CONNECTIONS

Comment: Change

In cases where the distribution main to which the customer's service connection and point of service is tapped is replaced or abandoned due to obsolescence, age or deterioration, the District shall install a new service connection and point of service to another distribution main which abuts the customer's premises. The location of the point of service will be located behind the curb or an area determined by the District as to be placed in a manner that is safe to perform maintenance to District said responsibilities. It may be the customer's responsibility to install a service line from the point of service to the place of consumption.

An abandoned service connection is to apply to a service connection that is disconnected from the main line or when no water is available at the point of service. If no point of service is located, it will be assumed that the service connection is abandoned.

In cases where the service connection has been requested in writing to be abandoned at the distribution main, the service connection will be abandoned at no cost to the customer

If the customer requests that an abandoned service connection be reconnected, the customer will pay the reconnection charges per the District's Invoice Billing Policy, not to exceed the cost of a new service connection installation, for the District to bring the service up to current District standards

Date of Issue:	July 1, 2005	Date Effective:	August 1, 2005
Issued by:	Donald I Domess M.D.A.	100 Aqua Drive,	Cold Spring, Ky 41076
Officer & Title	Ronald J. Barrow, M.P.A. Vice President - Finance		

FOR NKWD Area Served PSC No. 3 Sheet No. 17 Canceling PSC No. 2 Canceling Sheet No. 17

SECTION XVII-A – UPGRADING INACTIVE SERVICE CONNECTION

Comment: New

An inactive service connection is defined as a service connection that is still connected to the distribution main and a point of service is located, but no meter is present. Inactive service connection status will apply to a service connection after a period of one year after the meter has been requested to be turned off

If the customer requests that a meter be set in an inactive service connection, the District will activate the service at no cost to the customer

If the customer request that an inactive service connection be upgraded to meet current District standards, the customer will pay for the upgrades per the District's Invoice Billing Policy, not to exceed the cost of a new service connection installation.

SECTION XVIII – INDIVIDUAL PUBLIC FIRE HYDRANT INSTALLATION POLICY

Comment: Change

The District will install public fire hydrants to existing distribution mains within the District's service area where the Public Service Commission installation requirements for fire hydrants are met as follows:

- A written request must be submitted to the District by the applicant(s) desiring the fire hydrant installation.
- Submitting applicant(s) must pay for all material per the District's Invoice Billing Policy prior to hydrant installation.
- 3. The District will contribute the labor for the hydrant installation
- 4. Fire hydrant location will be determined by the District and the local fire department.
- Material to be paid for by the applicant/s is limited to: 8"X 8"X 6" Anchoring Tee, 6" Gate Valve, 6"X 12" Anchoring Coupling, 5 ¼" Main Valve Opening X 4'-0" Bury Fire Hydrant, 8" Solid Sleeve Coupling, and Valve Box, all other material cost will be at the District's expense.

SECTION XVIII-A - POLICY FOR INSTALLATION OF PUBLIC FIRE HYDRANTS ON UPGRADED AND NEW DISTRIBUTION MAINS

Comment: Change

For distribution main replacement projects, which involve replacement of existing distribution mains that currently do not have any fire hydrants or have a limited number of fire hydrants, the following procedures shall be used:

- a. Existing fire hydrants will be replaced in the approximate same location, unless the local fire department or city requests relocation and the adjacent property owners to the existing fire hydrant agree, in writing, to the relocation.
- b. Anchoring tees and valves may be installed along the water main project at approximately 450° 500° intervals for future fire hydrant installations.

Date of Issue:	July 1, 2005	Date Effective:	August 1, 2005
Issued by:		100 Aqua Drive	, Cold Spring, Ky 41076
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SECTION XVIII-A - POLICY FOR INSTALLATION OF PUBLIC FIRE HYDRANTS ON UPGRADED AND NEW DISTRIBUTION MAINS - Cont'd

- c. New fire hydrants may be installed at the District's expense for flushing purposes and at high points in the main for air releases, depending on hydrant spacing and as determined by the District.
- d. Additional fire hydrants may be installed if the property owners, local fire departments and/or cities wish to pay the cost of such hydrants. (Fire protection districts, under KRS 75.080 may install fire hydrants and apportion the costs of the installation against the owners of the property fronting the public ways in which the fire hydrants are installed.)

SECTION XIX – FIRE HYDRANT MAINTENANCE POLICY

Comment: Change

- 1. The local fire departments and cities are responsible for:
- a. Notification to the District of:
 - Any discrepancies or problems with a fire hydrant by submitting the proper "Fire Hydrant Inspection Reports" to the District.
 - 2. The amount of water used for flow testing and flushing fire hydrants, training drills using fire hydrants, refilling fire engine tanks, fire emergencies, and any other use for fire hydrants in accordance with 807 KAR 5.095. These figures only need to be an estimated amount.
 - 3. Any event in which a fire hydrant is utilized for any purpose other than an emergency. This includes: flow testing and flushing fire hydrants, training drills using fire hydrants (night or day), refilling fire engine tanks on a non-emergency basis, and any other non-emergency use for fire hydrants.
 - 4. Any event in which a fire hydrant is utilized for an emergency purpose. The District shall be notified as soon as practical.
- b. <u>Coordinated Inspection</u> of the working condition and accessibility of each public fire hydrant located in their jurisdiction including:
 - Inspection, operation and flow testing of all fire hydrants must coordinate with the District and should be conducted in the spring and fall only. Summer flow testing and inspection should be avoided due to increased demand on the system.
 - 2. Notification of any discrepancies or problems with the fire hydrant.
- c. Winterization (pumping them dry if they do not self drain) of all the hydrants in their area to avoid freezing (except as noted in Section XIX 2.d).
- d. Maintenance of the following items for public fire hydrants:

Date of Issue:	July 1, 2005	Date Effective:	August 1, 2005
Issued by:		100 Aqua Drive,	Cold Spring, Ky 41076
Officer & Title	Ronald J. Barrow, M.P.A.		

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SECTION XIX - FIRE HYDRANT MAINTENANCE POLICY - Cont'd

- 1. Lubricating the threads of the discharge nozzles and the operating nut of the fire hydrant.
- 2. Maintaining accessibility and visibility.
- 3. Replacing nozzle cap gaskets when they are missing or damaged beyond their usefulness.
- 4. Painting the entire fire hydrant, "red" for high pressure zones and "yellow" for all other zones. The only exception to this is, if the fire department elects to color code the hydrants as to the flows available. Only the color of the dome can then be changed.
- 2. The Northern Kentucky Water District is responsible for:
 - a. Repairing all public fire hydrants within a reasonable time, subject to the District's work load, after the District receives proper written notification from the fire departments or city with the exception of items listed under fire department and city responsibilities. The District will notify the local fire department or city when repairs are made.
 - Supplying paint, lubricant and nozzle cap gaskets to any fire department or city in the District's service area.
 - c. <u>Notification</u> to the local fire department when any fire hydrant in their service area is going to be out of service due to scheduled shut downs, main breaks, maintenance, etc. In cases of an emergency shut down, notification will be made as soon as practical.
 - d. Winterization (pumping them dry if they do not self drain) of all the hydrants used by the District for system operation and maintenance to prevent them from freezing between November 15 March 30.

SECTION XIX-A - POLICY FOR INSTALLATION OF PUBLIC FIRE HYDRANTS

Comment: Change

District Initiated Distribution Main Projects Under SECTION XIV-C of the District's Tariff ("100")
 Extension Rule")

For new distribution main projects initiated by the District which fall under the 100' Extension Rule, the following procedure shall be used for the installation of fire hydrants:

- Anchoring tees and valves may be installed along the water main project at approximately 450' 500' intervals for future fire hydrant installation.
- b. New fire hydrants may be installed, at the District's expense, for flushing purposes and at high points in the main for air releases depending on hydrant spacing and as determined by the District.

Date of Issue:	July 1, 2005	Date Effective:	August 1, 2005
Issued by:		100 Aqua Drive	, Cold Spring, Ky 41076
Officer & Title	Ronald J. Barrow, M.P.A. Vice President - Finance	-	, - ,

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SECTION XIX-A - POLICY FOR INSTALLATION OF PUBLIC FIRE HYDRANTS - Cont'd

c. Additional fire hydrants may be installed if the property owners, local fire departments and /or cities wish to pay the cost of such hydrants. (Fire protection districts, under KRS 75.080, may install fire hydrants and apportion the costs of the installation against the owners of the property fronting the public ways in which the fire hydrants are installed.)

2. Water Main Extensions made per SECTION XIV-A of the District's Tariff (50' Participation by the District)

For new distribution main projects that fall under the 50' Participation Rule, the following procedure shall be used for the installation of fire hydrants:

a. Fire hydrants will be installed along the distribution main project at approximately 450' - 500' intervals as recommended by the local planning commission and/or the local fire department. The cost of the fire hydrant installation will be built into the project cost and paid by the property owners requesting the distribution main extension.

3. Sub-District Type Projects

For projects that are funded through a surcharge on the water bill, the following procedure shall be used for the installation of fire hydrants:

- a. Fire hydrants will be installed along the distribution main project at approximately 450° 500° intervals as recommended by the Northern Kentucky Area Planning Commission and the local fire department. The cost of the fire hydrant installation will be built into the project and paid for by the surcharge on the water bill.
- b. In rural areas, fire hydrants may be installed at 1,000° intervals; tees and valves would be installed between these hydrants for future fire hydrant installation. Anchoring tee and valve locations will be approved by local fire department(s).

4. New Subdivisions

For new subdivisions where the distribution main is to be extended by a contractor(s) or developer(s), the following procedure shall be used for the installation of fire hydrants:

a. Fire hydrants will be installed throughout the subdivision at approximately 450' – 500' intervals as recommended by the local planning commission and/or the local fire department. The contractor or developer will be responsible for the cost of the fire hydrant installation.

Date of Issue:	July 1, 2005	Date Effective:	August 1, 2005
Issued by:		100 Agua Drive	, Cold Spring, Ky 41076
Officer & Title	Ronald J. Barrow, M.P.A.		
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Comment: New

SECTION XIX-A - POLICY FOR INSTALLATION OF PUBLIC FIRE HYDRANTS - Cont'd

5. General Fire Hydrant Installation Requirements

New fire hydrant installation shall only be permitted on distribution mains which can provide a minimum fire flow of 250 gpm and the water system supporting this flow has the capability of providing this flow for a period of not less than two (2) hours plus consumption at the maximum daily rate. A minimum of 30 psi must be available on the discharge side of all meters. Fire hydrants shall be connected only to distribution mains adequately sized to carry fire flows and in no case to lines smaller than six (6) inches. Fire hydrant spacing shall be as recommended by the Northern Kentucky Area Planning Commission and the local fire department, normally every 450' – 500'. Fire hydrants shall be located on or as close to side property lot lines as possible when feasible. If the hydraulic system cannot support the installation of fire hydrants, anchoring tees and valves shall be installed to allow for future fire hydrant installation when adequate water is available.

6. Existing Fire Hydrants Installed Prior to 1992 and Fire Hydrants Acquired from Other Water Systems

Fire hydrants installed prior to 1992 and fire hydrants acquired from other water systems may not meet the requirements of 807 KAR 5.066. These fire hydrants may be installed on water mains smaller than six inches or have flows less than PSC requirements. Those hydrants that do not meet these requirements are considered flushing type devices for the maintenance of the water system. The District does not warrant or guarantee the amount of water available from fire hydrants installed prior to 1992 or fire hydrants acquired from other water systems

SECTION XIX-B - RELOCATION OF EXISTING PUBLIC FIRE HYDRANTS

Existing public fire hydrants are defined as hydrants that are over one year old from the installation/maintenance period. Person(s), local fire department, and/or cities requesting a fire hydrant to be moved shall make written request to the District stating the reasons for the relocation. The District will inspect the hydrant in question and verify whether the problem with the location of the existing fire hydrant is a safety or other justifiable problem. If the District determines that there is a need to relocate the fire hydrant, the entity that made the request, will charged for the material only, to make said relocation per District's Billing Policy. The District will supply the labor cost for said relocation. If the District determines that the location is suitable and does not warranty relocating and the customer or entity still request relocation, 100% of the cost to relocate the fire hydrant, with no cap, will be paid by the customer or entity. The fire hydrant will be relocated to a location that is reasonable and most cost effective. If the District chooses to upgrade the hydrant as part of the relocation, the cost for the upgrade materials shall be borne by the District entirely. This policy shall not be used for upgrading an existing fire hydrant.

Date of Issue:	July 1, 2005	Date Effective:	August 1, 2005
Issued by:		100 Aqua Drive	, Cold Spring, Ky 41076
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SECTION XX – FIRE HYDRANT USE PERMITS FOR PRIVATE OR PUBLIC FIRE HYDRANTS

Comment: Change

Temporary water service may be made available from fire hydrants in the District's service area upon proper application and approval by the District. Fire hydrant permits are available at the District's offices and are approved based on available water, location of fire hydrants, and size of meter required.

Fire hydrant permits are normally issued by the District for only the following reasons (limited to duration of the need, but in no case longer than 30 days, as stated at issuance of permit):

- 1. Filling swimming pools
- 2. Instances which are non-recurring in a given area, such as:

a sewer flushing

d demolition dust control

b. mud jacking of streets

e. street cleaning

c. paving projects

f. street cutting

- 3. Street sweepers which use designated hydrants.
- 4. Other purposes as deemed necessary by the District.

All fire hydrant permit connections shall be properly metered and shall have proper backflow protection. Metering devices and backflow prevention devices shall be furnished by the District and obtained at the issuance of permit.

No Fire Hydrant Permit shall be issued for a period of more than 30 days without renewal.

No Fire Hydrant Permit shall be issued for construction purposes where a permanent service will be required at a future date.

Contractors performing road projects for which the time of construction is longer than 90 calendar days, who desire water service for any reason shall determine a central location, approved by the District, and shall cause to be constructed a service connection to meet their needs as per the Rates, Rules and Regulations of the District.

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SECTION XX – FIRE HYDRANT USE PERMITS FOR PRIVATE OR PUBLIC FIRE HYDRANTS - Cont'd

DEPOSITS, FEES and CHARGES:

Hydrant Usage Deposit – A refundable deposit shall be placed with the District, from which any charges shall be deducted for damages and unbilled water, and the balance returned to the holder of the permit.

Deposit Charges are as follows: 1 to 5 days = \$250.00 5 to 30 days = \$1,000.00

Each Fire Hydrant Permit will require a daily fee. The daily fee is as follows:

1" meter assembly with 5/8" outlet = \$15.00 per calendar day 3" meter assembly with $2\frac{1}{2}$ " outlet = \$30.00 per calendar day

The deposit for cities, counties, agencies, and others groups approved by the District shall be waived. Water consumption shall be billed at the normal rates of the District. The holder of a Fire Hydrant Permit shall be responsible for any damage (including freezing), loss, or theft of the meter assembly and for any damage to the fire hydrant, and will be charged for repairs at the District's Invoice Billing Policy. If there is any leakage between the fire hydrant and the connection to the permit holder's hose connection, the fire hydrant shall be immediately shut off and the District notified.

CHARGES FOR ESTIMATED USAGE WHEN NOT HAVING A PERMIT OR NOT USING METERING DEVICES:

No person, firm, or corporation shall use or make a connection to use water from a fire hydrant or other available source of water unless a properly authorized Fire Hydrant Permit is issued by the District. Any connections, hoses, wrenches, or appurtenances attached to a fire hydrant without a permit issued by the District shall be immediately confiscated by any employee of the District and the proper legal authority will be notified for the theft of service. In addition, where no permit was issued and there is no way to determine actual water usage, an estimated amount equal to the cost of the water flowed for four (4) hours @ 250gpm plus any damages to distribution system will be charged

PERMANENT INSTALLATION OF METER & BACKFLOW PREVENTER:

Cities, county agencies, and other groups approved by the District requesting permits for instances which are non-recurring in a given area, may install a meter (purchased from the District), an approved backflow prevention device or method, and appurtenances for permanent mounting on their equipment. The installation must be approved by the District. A Fire Hydrant Permit shall still be required for a specific hydrant(s). The meter must be delivered to District's office on or before the day of Fire Hydrant Permit expiration. At this time, the meter shall be read and billed to the permit holder. If permitted, the meter shall be re-issued for an additional time period. On a yearly basis, the meter must be tested by the Meter Service Department and the approved backflow preventer shall be tested by a Certified Backflow Technician acceptable to the District.

Date of Issue:	July 1, 2005	Date Effective:	August 1, 2005
Issued by:		100 Aqua Drive	e, Cold Spring, Ky 41076
Officer & Title	Ronald J. Barrow, M.P.A. Vice President - Finance	-	

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SECTION XXI - WATER SERVICE FOR FIRE DEPARTMENTS

Water is provided to fire departments served by the Water District for emergencies and their prevention at "No Charge".

SECTION XXII - PRIVATE FIRE PROTECTION SERVICE

Comment: New

Connections from the public water distribution system for new private fire protection service will be constructed per District's Standard Drawings on water mains which can support these types of installations. All private fire protection services shall comply with the requirements of 807 KAR5:095.

The property owner will be responsible for all installation and maintenance costs of the private fire protection service. No private fire service lines, hydrants or systems shall be installed without written approval from the District. It shall be the responsibility of the property owner to request approval from the District for any proposed alterations to the piping or equipment of any fire service line. There shall be no alteration without prior written approval of the District.

The property owner shall install, at property owner's expense, a detector check valve assembly or double check detector assembly, with by-pass meter, on the private fire protection service. Such installation shall be performed in accordance with the District's specifications. It shall be the responsibility of the property owner to limit the use of the private fire protection service to fire fighting or necessary testing only. Where a fire service line has outlets, such as fire hydrants or hose outlets, the District may seal each outlet. Such seal shall not be broken, except when necessary for fire fighting purposes. This tariff supercedes any existing special contract for the provision of private fire protection services. Any fire protection service that does not currently meet the District's requirements for a fire protection service will be given reasonable notice to comply with the current requirements and the District will work with them to identify a reasonable time period to comply.

A private fire service line from the District's main shall not be used for other than fire protection purposes, except when a dual service has been approved by the District in writing. The District may order a fire service line metered and converted to a commercial account to be billed at the current rate schedule for any of the following reasons:

- A. Continued use of water from the service line for other than fire fighting purposes after notification by the District. (Flushing debris, clean up or flushing of spillage, watering of dumps and other dry areas, shall not be considered as fire fighting purposes.)
- B. Failure to repair a leak or leaks on the fire service branch or fire protection system.
- C. Use of water from the fire service line to control or extinguish fires intentionally set by property owner.
- D. Unauthorized breaking of a seal or seals on outlets of a fire service line which was placed by the District

The District will notify the property owner of the need to install proper metering devices and give appropriate time to complete the installation.

Date of Issue:	July 1, 2005	Date Effective:	August 1, 2005	
Issued by:		100 Aqua Drive	100 Aqua Drive, Cold Spring, Ky 41076	
Officer & Title	Ronald J. Barrow, M.P.A. Vice President - Finance	<u> </u>		

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SECTION XX11 - PRIVATE FIRE PROTECTION SERVICE - Cont'd

Meter Investigation Charge: When routine meter reading indicates possible unauthorized use of fire protection facilities, the District may inspect the customer's facilities and premises. If such inspection of facilities on a customer's premises reveals broken meter seals, damaged meters, or unauthorized use of water, a meter investigation fee and actual repair costs may be assessed based on the District's Invoice Billing Policy. The actual amount of replacing seals or repairing the meter will be charged at actual cost. The customer may also be required to remove unauthorized connections or outlets on the fire protection facilities.

If water has been used for other than a verified fire fighting purpose, the customer will be charged for the estimated amount of usage at a penalty rate of \$10.00 per 100 cubic feet. Continued use of water for unauthorized purposes may result in disconnection of service or installation of an appropriate sized meter at the customer's expense and the imposition of applicable tariff rates for water service.

Failure of the customer to repair leaks on a fire service line shall result in his being billed for the actual or estimated usage at the appropriate tariff rate for that volume of usage.

SECTION XXIII - CROSS CONNECTION CONTROL POLICY

* This Tariff is pending before the PSC and is not intended to change, alter or modify any pending order of the PSC.

GENERAL:

In accordance to Kentucky Division of Water Regulations, 401 KAR 8.020, Section 2, Para. 2, All cross-connections are prohibited. The use of automatic devices such as reduced pressure zone backflow preventers and vacuum breakers, may be approved by the Natural Resources and Environmental Protection Cabinet in lieu of proper air gap separation. A combination of air gap separation and automatic devices shall be required where determined by the Cabinet to be necessary due to the degree of hazard to public health.

The Kentucky Division of Water 401 KAR 8:010, Section 1, Item 28, has defined cross-connections as a physical connection or arrangement between two (2) otherwise separate systems, one (1) of which contains potable water and the other being either water of unknown or questionable safety, or steam, gas or chemicals, whereby there may be flow from one (1) system to another, the direction of flow depending on the pressure differential between the (2) systems.

The District is required to comply with 401 KAR 8:020, Section 2, Para 2, as well as other rules and regulations for public water systems, which pertain to cross-connections, auxiliary intakes, bypasses, and inter-connections, and to establish an effective, on-going program to control these undesirable water uses.

The following requirements apply to all customers of the District:

All new commercial, industrial, multi-family, and governmental accounts will be required to meet the
District standards for cross-connection control upon notification from the District. Water service for
new commercial and industrial accounts will not be turned on until the Water District requirements are
met.

Date of Issue:	July 1, 2005	Date Effective:	August 1, 2005
Issued by:		100 Aqua Drive	e, Cold Spring, Ky 41076
Officer & Title	Ronald J. Barrow, M.P.A. Vice President - Finance	<u>.</u>	

FOR NKWD Area Served PSC No. 3 Sheet No. 26 Canceling PSC No. 2 Canceling Sheet No. 26

2. All existing commercial, industrial, multi-family, and governmental accounts will be required to meet the District standards for cross-connection control upon notification from the District Existing accounts will be prioritized by the largest meter size and consumption for that meter size, inspection will start with the largest meters and consumption. Existing accounts will have six (6) months upon potification from the

will be prioritized by the largest meter size and consumption for that meter size, inspection will start with the largest meters and consumption. Existing accounts will have six (6) months upon notification from the District, to meet District standards unless an additional time extension is approved by the District.

SECTION XXIII - CROSS CONNECTION CONTROL POLICY - Cont'd

3. Severe high hazard accounts will be required to meet the District standards for cross-connection control upon notification from the District. A severe high hazard customer creates a real or potential threat of contamination or pollution of a physical or toxic nature to the health and well-being of the public water supply. These customers continuously have hazardous cross-connections or the potential hazards are so great that these premises need to be prioritized. Existing accounts will be prioritized by the largest meter size and consumption for that meter size, inspection will start with the largest meters and consumption. Existing accounts will have six (6) months upon notification from the District, to meet District standards unless an additional time extension is granted by the District.

No person shall cause a cross-connection, auxiliary intake, bypass, or inter-connection to be made, or allow one to exist for any purpose whatsoever, unless the construction and operation of same meets the District standards for cross connection control.

INSPECTION:

The District shall inspect all commercial and industrial properties served by the public water system where cross-connections with the public water system are deemed possible. Authorized representatives from the District shall have the right to enter, at a reasonable time, any property served by a connection to the public water system for the purpose of inspecting the piping system or systems thereof for cross-connections, auxiliary intakes, bypasses or inter-connections. On request, the owner, lessee, or occupant of any property so served shall furnish to the inspection agency any pertinent information regarding the piping system or systems on such property. The refusal of such information or refusal of access, when requested, shall cause the District to classify the account as a severe high hazard account and the owner shall meet all District requirements for that classification.

REQUIREMENTS:

The District shall require the use of an approved protective device on the service line serving the premises to assure that any contamination that may originate in the customer's premises is contained therein. The type of protective devices to be installed shall correspond to the degree of hazard as determined by the District. All protective devices shall be listed and approved by the Foundation for Cross-Connection Control Research, University of Southern California and District.

The methods of installation of backflow protective devices shall be approved by the District prior to installation and shall comply with the criteria set forth by the District's standard specifications & drawings for the installation of backflow prevention devices. Any and all cost incurred with the installation and maintenance of cross-connection control devices and appurtenances shall be borne by the customer.

Date of Issue:	July 1, 2005	Date Effective:	August 1, 2005
Issued by:		100 Aqua Drive	, Cold Spring, Ky 41076
Officer & Title	Ronald J. Barrow, M.P.A.	-	

FOR NKWD Area Served PSC No. 3 Sheet No. 27 Canceling PSC No. 2 Canceling Sheet No. 27

SECTION XXIII - CROSS CONNECTION CONTROL POLICY - Cont'd

Any person who now has cross-connections, auxiliary intakes, bypasses, or inter-connections in violation of this policy shall be allowed a reasonable time to comply with the provisions of this policy. They will have six (6) months upon notification from the District, to meet District standards unless an additional time extension is granted by the District.

The failure to correct conditions threatening the safety of the public water system as required by this policy within the District approved time frame shall be grounds for termination of the water service.

Where cross-connection, inter-connections, auxiliary intakes, or bypasses are found that constitute an extreme hazard of immediate concern of contaminating the public water system, the District shall require that immediate corrective action be taken to eliminate the threat to the public water system. Immediate steps shall be taken to disconnect the public water supply from the on-site piping system unless the hazard(s) is corrected immediately.

All approved backflow prevention devices shall be tested and certified that they work properly by a District approved certified backflow tester directly after system activation and every year thereafter according to the manufacturer's recommendations.

Test notices will be sent out by the District prior to the due date, giving the customer 30 calendar days to get the device tested and proper paperwork returned to the District. If, after the first 30 days, no action is taken, a second notice will be sent to the customer giving them an additional 30 days to comply. If, after this time, no action is taken, a third notice will be sent, giving them 10 working days to comply or water service will be discontinued at the end of 10 days.

The failure to maintain backflow prevention devices in proper working order shall be grounds for discontinuing water service to a premise. Likewise, the removal, bypassing or altering of a protective device or the installation thereof, so as to render the device ineffective, shall constitute grounds for discontinuance of water service. Water service to such premises shall not be restored until the customer has corrected or eliminated such conditions or defects to the satisfaction of the District.

The requirements contained herein shall apply to all premises served by the District regardless of political subdivision boundaries, and shall constitute a part of the conditions required to be met to provide water service to any premises. Such action, being essential for the protection of the water distribution system against the entrance of contamination, may render the water non-potable.

ENFORCEMENT:

Whenever any person neglects or refuses to comply with any of the provisions of this policy, the District shall discontinue water service until such cross-connection, auxiliary intake, bypass or inter-connection has been corrected

Date of Issue:	July 1, 2005	Date Effective:	August 1, 2005
Issued by:		100 Aqua Drive	, Cold Spring, Ky 41076
Officer & Title	Ronald J. Barrow, M.P.A.		

FOR NKWD Area Served PSC No. 3 Sheet No. 28 Canceling PSC No. 2 Canceling Sheet No. 28

Northern & Kentucky Xater 1 18tr1ct	Service Address 2205 MEMORIAL PKWY DOM Account Summary		Customer Number				
	Prior Balance \$-0.01	Payments \$ 0.00	Bal. Forward \$-0.01	Adjustments \$ 0.00	New Charges \$-0.01	Total Amount \$-0.03	Due
Office: 3049 Dixie Highway Edgewood, KY 41017	Meter	Reading Data	1		Billing Date January 21, 2005	Payment Due I February 23, 2	
Mailing Address: P O Box 17010 Covington, KY 41017	Meter # 48855021	Size Read	ious Current Date Read Date 05/04 01/05/05	Read Days Type 92 Regular	Previous Currer Reading Readin 51		Units
Any questions? Please call us at 859 578 9898 Monday – Friday 8:00 AM – 5:00 PM		ading Date: Apr Charges Det		e Period: Oct	Total Usage Bill		нс 2005
Approval has been given for a rate adjustment by the KY PSC. Since the effective date (8-18-04) may be during this billing period, your bill will be prorated using both the old and the new rate structures. IF YOUR PAYMENT IS MADE USING A BANKING SERVICE, SUCH AS INTERNET BANKING OR BANKING BY PHONE, PLEASE NOTHEY THEM OF YOUR NEW CUSTOMER NUMBER AND NEW ACCOUNT NUMBER	Net Adjus Current Cr Payment Payment Heter Ser Consumpti School Ta	tments harges vice Charge on - Tier 1: 13 ixes - Ft. Thoma irges for: 2205	.00 HCF @ \$2.63 pe s MEHORIAL PKWY DOM	r HCF	2005.	-5- 	0.00 0.01 4.31 8.53 4.19 1.58 0.01

Usage History

Bill Date	Days	Usa	ge
10/05/04	91	8	HCF
07/06/04	92	7	HCF
04/05/04	89	8	HCF
01/07/04	48	2	HCF
11/20/03	0	26	HCF

Return this portion with	Return this portion with your payment. Make check or money order made payable to NKWD				
Customer Number 0053660999	ON or BEFORE Pay this Amount 02/23/05 \$-0.03 AFTER Pay this Amount 02/23/05 \$-0.03				
Account Number 0375364020	If address has changed, please check here, complete the information on the reverse side and mail back to NKWD.				
	To pay by credit card, please check here, complete the information on the reverse side and mail back to NKWD				
L	Northern Kentucky Water District P O BOX 17010 COVINGTON KY 41017 http://doi.org/10.1001/j.j.gov/j.j.gov/j.j.gov/j.j.gov/j.j.gov/j.g				
	Customer Number 0053660999 Account Number				

INDIANA DIMINA ITIA ITIA Vice President - Finance

FOR NKWD Area Served PSC No. 3 Sheet No. 29 Canceling PSC No. 2 Canceling Sheet No. 29

Lby:					100 Aqua Drive, (Cold Spring Ky
Home Phone						
State		Zip C	Code	Authorized Sign		
City		TO THE RESERVE TO THE PARTY OF	***************************************	Expiration Date	e Amo	ount Paid
Address		All all years of the second second		Credit Card Nu	mber	
			AAAAAAAAAA	☐ VISA	☐ MASTERCARD	O DISCOVER
Print new mailir	ng address or	telephone n	umber here:	Credit Card Pa	yment Option:	
After hours (iens/service turn emergency shut- y questions/conc	off:	859-578-9898 513-244-9016 859-441-0482	Tour and spea Public Service TDD	ker requests: Commission:	859-441-0482 1-800-772-4636 859-578-4893
				HONE NUMBERS:		
		The Pub	Visit us on the w	: available upon request. eb at: <u>www.nkywater.org</u> sion of Kentucky regulates '	this utility	
				INFORMATION		
			is obtained by 0		HCF = Hundreds of Cubic Feet TGL = Thousands of Gallons	
Moving	All requests for disconnection of sen- made one business day in advance. You responsible for all charges until su		ance. You will be he	ld Conversion Factor	1 Cubic foot x 7 48 = gal	
	connection date	G		Returned Check	A returned check lee v	vill be charged on an
Payment Plans	Payment arran-	gements can be	made by contactions PRIOR to the di	Service Charge	Delinquent accounts the order issued for disconne charge.	at have had a service ect will require a service
Penalty	A penalty is a before the due excuse paymer	date Failure to	ounts not paid on receive bill does n	or Minimum Bill ot	A minimum bill will be accounts even if no cons	umption is registered
				Int Kentucky 41017		
	8:00 am 5:00 Monday Frida	iÀ	1045 E	aton Drive		
	Office Hours		017 Edgewood Kentucky 41017 100 Aqua Drive Cold Spring Kentucky 41076		erringial inclinately t	
	Walk-In 3049 Dixie Hig	ghway	3049 D	Box Locations ixie Highway	Mail P0 Box 17010 Covington Kentucky 4	1017
This bill may be p	aid at the following	ng locations:				
C	VER PHONE IN PERSON			liscover payments over the Dixie Highway or at one of	phone. the drop boxes, make chec	k payable to NKWD.
PRE-AUTHORIZED PAYMENT AT MOST BANKS Bills may be payable at your local bank must be paid live (5) days prior to due			banking facility, please cho due date	eck with your individual ban	ik for acceptance Bills	
DROP BOX Drop boxes are lecated at each of our District office at 1045 Eaton Drive Bills			Bills must be dropped all	two (2) days prior to due d	ale	
avoid late charges.			allow sufficient time for the payment to reach our office by the due date to			

FOR NKWD Area Served PSC No. 3 Sheet No. 30 Canceling PSC No. 2 Canceling Sheet No. 30

rthern®Kentucky /ater ||)1str1ct

Service Address

Dear Customer,

2835 CRESCENT SPRINGS RD

Customer Number 0053660999

Account Number 7444830341

Date of Notice September 10, 2004 Disconnection Date September 25, 2004 Total Amount Due \$247.73

Disconnection Notice

Office: 3049 Dixie Highway Edgewood, KY 41017

Mailing Address: P.O Box 17010 Covington, KY 41017

Any questions? Please call us at 859 578.9898 Monday - Friday 8:00 AM - 5:00 PM

We understand that sometimes payment of bills can be overlooked. As of September 10, 2004 our records do not indicate receiving your payment.

Please check your records and if payment has been made, please contact our office to verify that the payment was received.

If payment has not been made, please make this payment immediately. If payment is not received in our office by close of business on **September 24**, **2004** we will be forced to disconnect your water services. If a representative is dispatched or if water is disconnected a **service charge will be required** in addition to the past due amounts.

For information on making arrangements or questions concerning your account, contact our customer service department at 859-578-9898 before September 25, 2004.

Thank you in advance for your quick response to this notice.

Return this portion with your payment. Make check or money order made payable to NKWD

Northern Kentucky Nater District

PO Box 17010 Covington, KY 41017

Address Service Requested

N Ky Water District C/O Mark Lofland PO Box 17010 Covington, KY 41017-0010 IdadadHaaallaallaallaaallaaallaabbl

Customer Number

0053660999

Account Number

7444830341

Disconnection Date September 25, 2004 Pay this Amount \$247.73

If address has changed, please check here, complete the information on the reverse side and mail back to NKWD

To pay by credit card, please check here complete the information on the reverse side and mail back to NKWD

> Northern Kentucky Water District P O BOX 17010 COVINGTON KY 41017 $1.1 \times 1.0 \times 1.0$

Officer & Title Ronald J. Barrow, M.P.A Vice President - Finance

FOR NKWD Area Served PSC No. 3 Sheet No. 31 Canceling PSC No. 2 Canceling Sheet No. 31



February 28, 2005

N KY WATER DISTRICT C/O MARK LOFLAND PO BOX 17010 COVINGTON KY 41017-0010

Account Number: 3147691726 Customer Number: 0053660999

Dear N KY WATER DISTRICT,

Thank you for contacting our office to make payment arrangements on your account. The arrangement is to be paid in 1 installments. Your payment schedule is as follows:

\$25 00 due on 4/1/2005

If scheduled payment is not kept current, the water service will be discontinued without further notice. In addition, all future bills must be kept current and paid on time or the water service will be disconnected on the scheduled shut off date.

If you have any questions or feel this notice is not accurate, please feel free to contact one of our customer service representatives at (859) 578-9898

Sincerely,

Northern Kentucky Water District Customer Service Department

Northern Kentucky Water District 3049 Disic Highway P O Box 17010 Covington Kentucky 41017 859-578-9898 859-578-5456 Fax

Vice President - Finance

FOR NKWD Area Served PSC No. 3 Sheet No. 32 Canceling PSC No. 2 Canceling Sheet No. 32

APPENDIX A – Subdistrict Street Names

Comment: New

Customers in Subdistrict A

- Ashford Village Subdivision Donegal Ct., Ashford Rd., Celtic Ct., Galloway Ct., Kildare Ct., Limerick Circlecourt, Waterford Ct. (Off of Mills Rd.)
- Bowman Rd. (KY 16 to end of road)
- Dorman Dr. (Hickory Grove to end of road)
- Gretchen Dr. (Ryland Estates Subdivision) Stewart to end of road
- Hickory Grove Drive KY 16 to end of road
- KY 177 Porter Rd. to Pruett Rd.
- Manor Hill Subdivision Briarcrest Lane, Burbridge Trail, Chipping Camden, Cotswold Way, Foxbourne Lane, Manor Hill Dr., Sussex Ct., Tanglewood Trace, Teenisian Pl., Willowhurst Trace & Windmere Hill (Off Marshall Rd.)
- Manor Lake $Dr_{\rm c} KY$ 16 to end of road
- Marshall Rd. KY 16 to Stewart Rd.
- Miller Lane Tapped off KY 177
- Mills Rd Marshall to Taylor Mill Water Service Area (5,700')
- Petty Rd. Tapped off Marshall Rd.
- Pruett Rd. KY 177 to 300'
- Riggs Rd. KY 16 to end of road
- Ryland Trace Dr. Subdivision off KY 177 Staffordsburg Rd. Marshall Rd. to Maverick
- Stewart Rd. Marshall to KY 177
- Teegarden Lane Bowman to end of road

Customers in Subdistrict B

- Armstrong Rd. 1 service tapped off Moffett
- Bird Rd. KY 17 to Wynewood
- Farmview Dr. Moffett Rd. to end of pavement
- Gleason 1 service tapped off Madison
- KY 17 (Madison Pike) 12363 to 14158 1,200' North of Callant Rd. to Gleason
- Martin Rd. Moffett Rd. to 3,650'
- Moffett Rd. KY 17 to Armstrong Rd.
- Rector Rd. Moffett Rd. to 8,100'
- Rosehawk Lane (Forrest Ridge Subdivision Off of Moffett)
- Wynewood Trail Bird Rd to end of road

Customers in Subdistrict C

- Banklick Rd. From Bristow to Maher
- Callant From KY 17 for the first 0.6 miles
- Dixon Dr. 2 services tapped on KY 17, 1 service tapped on Rich Rd.
- Gardnersville Rd. From KY 17 for the first 0.8 miles
- Glenhurst Subdivision Chinkapin Circle, Berlander Dr., Glenhurst Dr., Lyonia Dr., Colton Ct., Hornbean Dr. Off of Maher Rd.) Glenhurst Subdivision - Glenhurst Drive (Subdistrict stops at Intersection of Glenhurst Dr. & Berlander Dr. Off of Maher Road

Date of Issue.	July 1, 2005	Date Effective:	August 1, 2005
Issued by:		100 Aqua Drive	, Cold Spring, Ky 41076
Officer & Title	Ronald J. Barrow, M.P.A. Vice President - Finance		

FOR NKWD Area Served PSC No. 3 Sheet No. 33 Canceling PSC No. 2 Canceling Sheet No. 33

APPENDIX A - Subdistrict Street Names - Cont'd

- Glenhurst Subdivision Glenhurst Drive (Sub district stops at Intersection of Glenhurst Drive & Berlander Drive, Off of Maher Road
- Graven Rd. From Maher, 4,400' towards Wright Road
- Green Rd. KY 16 to US 25
- Hempfling Rd. First 2.1 miles
- Independence From Shaw to Maher Rd., Maher 2700' towards Banklick
- KY 17 (Madison Pike) 14192 15960 Gleason to Pendleton County Line
- Maher From Banklick Rd. to Kenton/Boone County Line
- Maher From Independence Road to Banklick
- Martin Road From Subdistrict B to Staffordsburg Road
- Mulberry Lane (Rolling Greene Subdivision off of Green Road)
- Paxton Road From KY 17 for the first 0.65 miles
- Percival Road
- Rector Road From Subdistrict B to Kenton Station Road
- Rich Road From KY 17 for the first 2.1 miles
- South Fork Estates Subdivision (South Fork Drive)
- South Fork Estates Subdivision (Thoroughbred Lane)
- South Fork Estates Subdivision Stablegate
- Spillman Road KY 17 to end of road
- Staffordsburg Road From KY 16 to Martin Road
- Stephenson Road From Green Road to the first 0.5 miles
- Symbo From Green Road for the first 0.6 miles
- Tupelo Drive Glenhurst Subdivision, Off of Maher Road
- US 25 Walton City Limits to KY 14
- Visalia Road From Klein Road to the school (waiting on PSC approval)
- Visalia Road From Staffordsburg Road for 2 miles
- York Road From US 25 to the first 0.4 miles

Customer in Subdistrict D

- 4 Mile Pike from Uhl Road to Geenvalle
- California Cross Roads from Saint Peter and Paul to Washington Trace Road
- Ky Route 8 to McDonald Lane off Blangey Road
- Persimmon Grove Pike from Burns Road to California Cross Road
- Persimmon Grove Pike from Shaw to Burns Road
- Persimmon Grove Pike from Stevens Branch to Shaw
- Wagner Road first .6 miles
- Winters Lane County
- Providence Trace off of 4 Mile
- Licking Pike & Steffen Road from Route 10 to KY 936 ky 936 before Poplar Thicket

Customers in Subdistrict E

- Bethel Grove
- Brandy Lane
- Bromley Crescent Springs Road
- Fiskburg Road (KY 17 to Goshorn Road)

Date of Issue:	July 1, 2005	Date Effective:	August 1, 2005
Issued by:		100 Aqua Drive	, Cold Spring, Ky 41076
Officer & Title	Ronald J. Barrow, M.P.A. Vice President - Finance		

FOR NKWD Area Served PSC No. 3 Sheet No. 34 Canceling PSC No. 2 Canceling Sheet No. 34

APPENDIX A - Subdistrict Street Names - Cont'd

- Ishmael Road (KY 177 to 1200')
- Kenton Station (Rector Road to KY 177)
- KY 177 (North of Kenton Station 7100')
- KY 177 (North of Vises Trail 4250')
- KY 177 (South of Kenton Station 5400')
- KY 177 (South of Vises Trail 2850')
- Licking Station
- McDonald Avenue
- Oliver Road
- St. Johns Road
- Vises Trail from KY 177 to 1150' south of Visalia Road
- Whitaker

Customers in Subdistrict R

- Coleman Road KY 177 to end of street
- Feiser Road Porter Road to Locust Pike
- KY 177 500' North of Wards to 2900' South of Wards
- KY 177 Porter Road to 800' North
- KY 177 Pruett Road to Ryland Lakes Drive
- Locust Pike 650' West of Whites end of road
- Locust Pike Feiser Road to Wards Lane
- Porter Road KY 177 to 7,500°
- Redrow Locust Pike to end of street
- Spanton Road Locust Pike to 1,300'
- Wards Lane Locust Pike to KY 177
- Whites Road KY 177 to Locust Pike

Customers in Subdistrict RF

- KY 177 (From Subdistrict R to short Marshall)
- Porter Road (From Tecuseh approximately 500')
- Short Marshall (KY 177 East 500')
- Tecumseh

Customers in Subdistrict RL

- Crystal Court
- Crystal Drive
- Crystal Lane
- Ernst Bridge Road
- Hillside Drive
- Maplewood Drive
- Meadow Lane
 Mirror Court
- Northall Court
- Orchard Lane
- Redbud Lane

Date of Issue.	July 1, 2005	Date Effective:	August 1, 2005
Issued by:		100 Aqua Drive	, Cold Spring, Ky 41076

Officer & Title Ronald J. Barrow, M.P.A. Vice President - Finance

NORTHERN KENTUCKY WATER DISTRICT

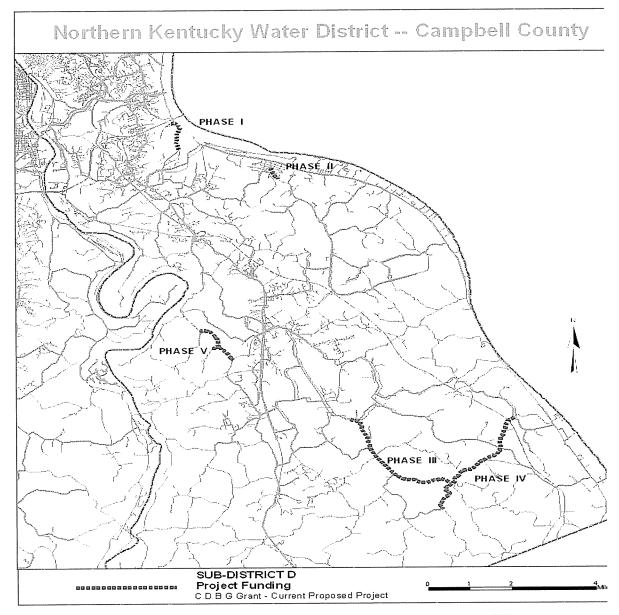
FOR NKWD Area Served PSC No. 3 Sheet No. 35 Canceling PSC No. 2 Canceling Sheet No. 35

APPENDIX A - Subdistrict Street Names - Cont'd

- Ryland Lakes Drive Sylvan Lake Drive Wild Lake Drive

Date of Issue:	July 1, 2005	Date Effective:	August 1, 2005
Issued by:		100 Aqua Drive	, Cold Spring, Ky 41076
Officer & Title	Ronald J. Barrow, M.P.A. Vice President - Finance		

FOR NKWD Area Served PSC No. 3 Sheet No. 36 Canceling PSC No. 2
Canceling Sheet No. 36



Date of Issue:

July 1, 2005

Date Effective:

August 1, 2005

Issued by:

Officer & Title

100 Aqua Drive, Cold Spring, Ky 41076

Ronald J. Barrow, M.P.A. Vice President - Finance

Exhibit O 2005 Project List

NKWD
Rate Case 2005-00148
Exhibit O
Witness: Harrison

Page	PSC	Northern Kentucky Water District	Tracking	Total Project Funding	
#	#	Projects	Acct#	Cost Source	Certificate of Need
-	82	US 27 Pumping Station Expansion	184-0433	\$2,300,000 BAN 2005	Cert. applied for Case #-2005-00052
2	83	TMTP Filter and Pump Drive Improvements	184-0434	\$610,000 BAN 2005	Ord. Course of Business
3	85	FTTP Tube Settler Replacement	184-0438	\$950,000 BAN 2005	Ord. Course of Business
4	98	MPTP Chemical Building/Raw Water PS/Transfer Pipe - 3 Projects (Engineering)	184-0435	\$500,000 BAN 2005	Ord. Course of Business
2	22	24" Redundancy Glenn Ave., Covington	184-0123	\$980,000 BAN 2005	Ord. Course of Business
9	34	Poplar Ridge Rd./Four Mile Pike/Nelson Road 12" Project (PSC#34+35+36)	184-0132	\$1,160,000 BAN 2005	Certificated needed
7	48	Water Main Replacement Program 2004		\$477,410 BAN 2005	Ord. Course of Business
	48-a	3rd Street	184-0160	\$372,000 BAN 2005	Ord. Course of Business
	48-b	Steel Water Main Phase 3	184-0177	\$315,590 BAN 2005	Ord. Course of Business
	48-d	New Richmond Road (Old Carthage Rd)	184-0175	\$420,000 BAN 2005	Ord. Course of Business
	48-f	4 Mile Circle	184-0168	\$115,000 BAN 2005	Ord. Course of Business
∞	96	2004 Systematic Water Main Replacement (Grand Ave.)	184-0167	\$1,000,000 BAN 2005	Certificate Needed, currently under design
တ	52	Lower Tug Fork (Upper Tug Fork 6")	184-0121	\$325,000 BAN 2005	Ord. Course of Business
9	53	Water Main Replacement Program 2005 (\$2,100,000)		\$1,520,000 BAN 2005	Ord. Course of Business
	53a	Forest/Short John/John St. 2005 Main Replacement	184-0174	\$580,000 BAN 2005	Ord. Course of Business
=	59	Pelly Rd from Ky 17 to Senour Road	184-0135	\$400,000 BAN 2005	Ord. Course of Business
12	61	Senour Road from Pelly to Ky 16	184-0137	\$165,500 BAN 2005	Ord. Course of Business
13	65c	Central Facility - Remodeling	184-0305	\$4,600,000 BAN 2005	Cert. applied for Case #-2005-00063
		BAN 2005		\$16,790,500	
14	84	Standby Generator at ORPS1		\$95,000 BAN 2005	Ord. Course of Business
15	110	FTTP Ultraviolet Disinfection (Engineering Only)		\$500,000 BAN 2005	Ord. Course of Business
16	119	TMTP Backwash Handling System		\$200,000 BAN 2005	Ord. Course of Business
17	45	Licking Pike From Trapp Rd to Rifle Range	184-0116	\$135,000 BAN 2005	Ord. Course of Business
18	46	Licking Pike from Rifle Range to Sub-D	184-0117	\$70,000 BAN 2005	Ord. Course of Business
19	49	Mains into Unserved Areas 2004 (Campbell Co.) Engineering & Upgrade		\$250,000 BAN 2005	Ord. Course of Business
20	54	Mains into Unserved Areas 2005 (Kenton Co.) Engineering & Upgrade		\$250,000 BAN 2005	Ord. Course of Business
21	104			\$800,000 BAN 2005	Ord. Course of Business
13	929	Central Facility - Purchase Price \$4,900,000 (BAN 2004)	184-0305	\$3,650,000 BAN 2004	Cert. applied for Case #-2005-00063
22	6	Install Third Pump At Ripple Creek PS		\$160,000 BAN 2005	Ord. Course of Business
23	83	TMTP Tube Settler Replacement		\$210,000 BAN 2005	Ord. Course of Business
24	32	Bristow Road P.S. 12" to Bristow Road	184-0108	\$90,000 BAN 2005	Ord. Course of Business
25	33	Narrows Rd. (connecting ext 16" & 12")	184-0109	\$96,000 BAN 2005	Ord. Course of Business
56	37	Four & Twelve Mile Rd. (Nelson to Hwy 1566)	184-0113	\$670,000 BAN 2005	Ord. Course of Business
27	20	4 Mile Pk. (Uhl Rd. south to End of Line)	184-0119	\$230,000 BAN 2005	Ord. Course of Business
28	62	Hands Pike from Ky 16 to Edwin Drive	184-0138	\$285,000 BAN 2005	Ord. Course of Business
59	63	Ky. 16, from Hands Pike to Klette Road	184-0139	\$275,000 BAN 2005	Ord. Course of Business
30	74	Newport LS/HS Interconnect/Regulated Woodlawn	184-0143	\$520,000 BAN 2005	Ord. Course of Business
		Additional Project Totals		\$8,486,000	
		Total 2005 Rate Case Projects		\$25,276,500	

Date:6/29/2005

Exhibit O List



US 27 Pumping Station Expansion Project

Water Quality and Production Project

FUNDING SOURCE \$ 2.3 million BAN 2005 \$ 2.3 million Total Cost

PROJECT TYPE: Pump Station Upgrade

BU	DGET	BY YEAR	
2004		\$	500,000
2005		\$	1,800,000
			:
TOTAL COSTS	\$		2,300,000

PROJECT DESCRIPTION

The US 27 Pumping Station takes water from the Fort Thomas Treatment Plant (FTTP) and distributes it into Highland Heights where it is further distributed out to the rest of southern Campbell County. The station also allows us to supply all of Campbell County (except for the City of Newport) from the FTTP when the Memorial Parkway Treatment Plant is not running. At peak times, the pumping station can no longer keep up with demand. This project will put an addition onto the existing pumping station that will accommodate three additional pumps and will satisfy demand for the next 20 years. This project was recommended in the July 2001 NKWD "Water Distribution System Master Plan". Burgess and Niple Inc. was selected in 2004 to do the design and construction services for this project.





TMTP Filter and Pump Drive Improvements

Water Quality and Production Project

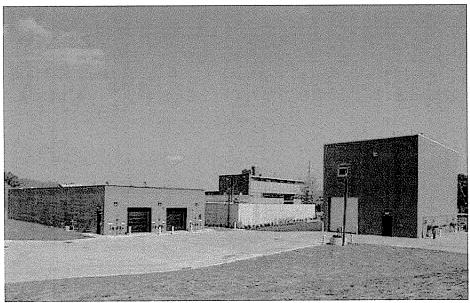
FUNDING S	OURCE	
\$	610,000	BAN 2005
\$	610,000	Total Cost

PROJECT TYPE: Pumping Station Upgrade & Filter Media Replacement

BU	IDGET BY YEAR	2
2004	\$	
2005	\$	610,000
2006	\$	
2007	\$	
2008	\$	
TOTAL COSTS	\$	610,000

PROJECT DESCRIPTION

The Taylor Mill Treatment Plant (TMTP) treats water and also houses a pumping station that takes water from the Fort Thomas Treatment Plant and distributes it to the two Dudley 5 million gallon tanks. This project involves replacing the existing filter media at this treatment plant and modification and/or replacement of the exisiting pumps. Because all of the pumps at the TMTP pump station are constant speed pumps, we have difficulty keeping the clearwell at the TMTP as full as it needs to be to meet regulations during certain times of the year. Additionally a variable frequency drive will allow us to eliminate the cycling on and off of the existing pumps and will save energy.



Taylor Mill Treatment Plant

PROJECT TYPE: Plant Upgrade

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Fort Thomas Treatment Plant Tube Settler Replacement

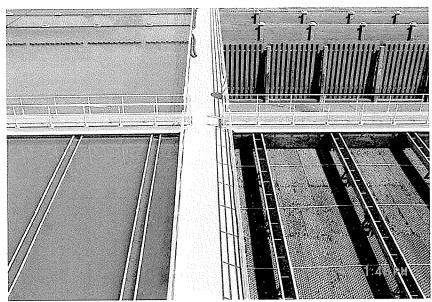
Water Quality and Production Project

FUNDING SOURCE				
\$	950,000	BAN 2005		
\$	950,000	Total Cost		
		:		

BU	DGE	T BY YEAR	
2005		\$	950,000
TOTAL COSTS	\$		950,000

PROJECT DESCRIPTION

Tube settlers are 3' plastic tubes that are arranged vertically in the sedimentation basins at water treatment plants to assist in sediment removal. We have saved approximately 15% in chemical costs since tube settlers were installed. According to the May 2004 "Asset Management Program Final Report": "The tube settlers are in unsatisfactory condition. District staff indicated that pieces of the tubes are found when the basin is taken down for regularly scheduled maintenance. There are several places where the tubes are damaged from cleaning and maintenance...." New tube settlers are made from a more resilient material and should be less prone to breakage.



Sedimentation basins at FTTP. Empty basin on right shows existing tube settlers.



Memorial Parkway Treatment Plant Chemical Building Replacement

Water Quality and Production Project

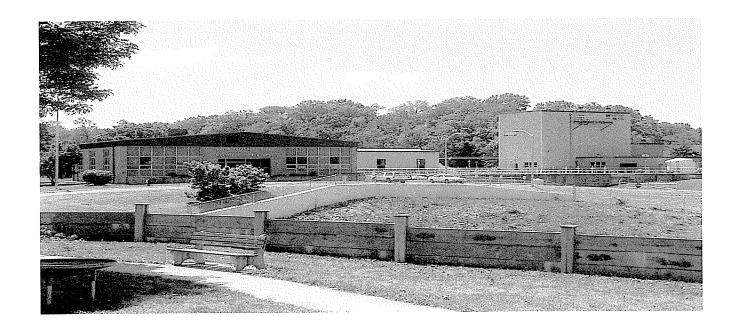
PROJECT TYPE: Water Treatment Plant Upgrade

FUNDING	SOURCE	
\$	4.5 million	BAN 2005/06
\$	4.5 million	Total Cost

BUDGET BY YEAR	
2005 Eng. Only \$	500,000
2006 Const. \$	4,000,000
	•
TOTAL COSTS \$	4,500,000

PROJECT DESCRIPTION

NKWD has commissioned 5 studies since 1999 that evaluated the condition of the Memorial Parkway treatment plant. All of the studies describe and detail the poor condition of the chemical building in particular. The building was designed for dry chemical storage and does not meet the present required treatment which includes 10 liquid chemicals. There is inadequate chemical containment, the feed equipment is out of date and the building has structural deficiencies. On June 1, 2004, NKWD hired CH2MHill to propose 4 options to address the chemical building deficiencies. This study is being finalized and reviewed by staff with an an early 2005 recommendation to the Board planned. This project also includes some modifications to the reservoir pumping station and pipework.



CAPITAL ITEM NAME 24" Water Main Redundancy Project

Engineering and Distribution Project

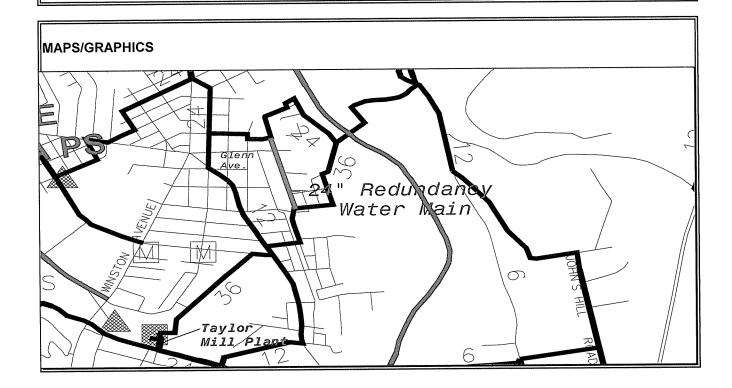
FUNDING S	OURCE	
\$	980,000	BAN 2005
\$	980,000	Total Cost

PROJECT TYPE: 24" Redundancy Water Main

BUDGET BY YEAR		
2001	\$	О
2002	\$	o
2003	\$	o
2004	\$	0
2005	\$	980,000
2006	\$	0
TOTAL COSTS	\$	980,000

PROJECT DESCRIPTION (184-123)

This project involves replacing a 4" & 6" water main along Glenn Avenue with a 24" water main in the City of Covington, Kenton County, Kentucky. This project is designed to strengthen the District's water transmission system and provide some redundancy for the District's 36" water main. The District has experienced some trouble with the 36" water main in the past and this improvement will help provide additional backup.



CAPITAL ITEM NAME Poplar Ridge Road/Four Mile Pike/Nelson Road - 12" W.M.

(From Upper Tug Fork for to Stonehouse Road)

Engineering and Distribution Project

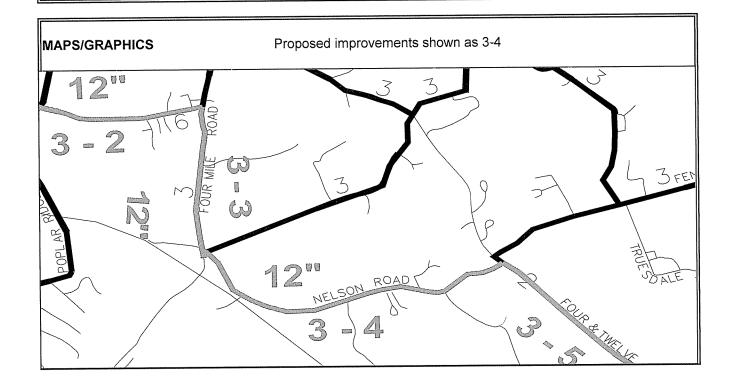
FUNDING S	SOURCE	
\$	1,160,000	2005 BAN
\$	1,160,000	Total Cost

BUDGET BY YEAR		
2001	\$	o
2002	\$	0
2003	\$	0
2004	\$	o
2005	\$	1,160,000
2006	\$_	0
TOTAL COSTS	\$	1,160,000

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION (184-0132)

The proposed project involves constructing a new 12 inch water main along Poplar Ridge Road from Upper Tug Fork to Four Mile Pike, along Four Mile Pike from Poplar Ridge to Nelson Road and Nelson Road from Four Mile Pike to Stonehouse Road in Campbell County, Kentucky. This project was originally three separate project (PSC Reference #34, 35, & 36) but they were combined to save engineering and construction cost. The length of this project is approx. 13,000 LF. There are a couple of new right-of-ways of easements that will be needed. The estimated cost for the project is \$1,160,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.



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CAPITAL ITEM NAME Water Main replacement Program 2004

Engineering and Distribution Project

FUNDING S	OURCE	
\$	1,700,000	2005 BAN
\$	1,700,000	Total Cost

PROJECT TYPE: Water Main Replacement

BUDGET BY YEAR		
2001	\$	0
2002	\$	0
2003	\$	0
2004	\$	o
2005	\$	1,700,000
2006	\$	0
TOTAL COSTS	\$	1,700,000

PROJECT DESCRIPTION

This proposed program involves working with various cities in the District's service area to replace old water mains which are deteriorating. The District plans to replace the existing water mains in conjunction with City Street Replacement Programs. Working together with Cities saves the District restoration cost and coordinates our work with the street work. This program is designed to replace existing 4", 6" or 8" unlined cast iron water mains, which the District has experienced some problems with. These funds are part of the District's proposed program designed to replace or rehabilitate 1% of the District's distribution system annually. Some projects include: 3rd Street, Steel Water Main-Phase 3, New Richmond Road, and 4 Mile Circle. Other funding sources will be the Operation Capital Budget for main replacement and the Operations & Maintenance Budget for main rehabilitation.

MAPS/GRAPHICS	
N/A	



CAPITAL ITEM NAME 2004 Systematic Water Main Replacement

Engineering and Distribution Project

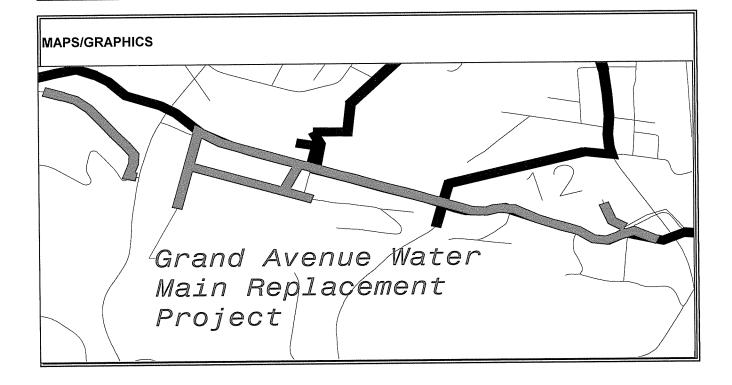
FUNDING SOURCE		
\$	1,000,000	2005 BAN
\$	1,000,000	Total Cost

PROJECT TYPE: Water Main Replacement

BUDGET BY YEAR		
2003	\$	0
2004	\$	0
2005	\$	1,000,000
2006	\$	0
2007	\$	0
2008	\$.	0
TOTAL COSTS	\$	1,000,000

PROJECT DESCRIPTION

This proposed program involves the systematic replacement of old water mains in neighborhood areas which the District has experienced some problems with - poor flows, discolored water complaints and deteriorating water quality. The replacement of these 4", 6" or 8" unlined cast iron water mains will help to improve the overall area water system. This project area includes Grand Ave., Howard Ave., Cleveland Ave. and Parkview Ave. These funds are needed to bring the District's Replacement & Rehabilitation Program up to 1% annually. Other funding sources will be the 5 Year Capital Budget & Operation Capital Budget for main replacement and the Operations & Maintenance Budget for main rehabilitation.



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CAPITAL ITEM NAME Lower Tug Fork (from Upper Tug to end of Existing 6" line)

Engineering and Distribution Project

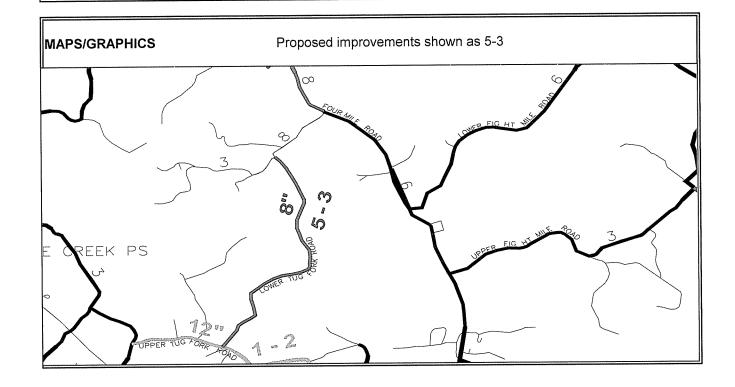
PROJECT TYPE: Hydaulic Master Plan

FUNDING S	OURCE	
\$	325,000	2005 BAN
\$	325,000	Total Cost

BUDGET BY YEAR		
2001	\$	0
2002	\$	o
2003	\$	o
2004	\$	o
2005	\$	325,000
2006	\$	0
TOTAL COSTS	\$	325,000

PROJECT DESCRIPTION (184-0121)

The proposed project involves constructing a new 8 inch water main along Lower Tug Fork from existing 6" to Upper Tug Fork Campbell County, Kentucky. The length of this project is approx. 10,500 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$325,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Water Main Replacement Program 2005

Engineering and Distribution Project

FUNDING S	SOURCE	
\$	2,100,000	2005 BAN
\$	2,100,000	Total Cost

PROJECT TYPE: Water Main Replacement

BU	DGET BY	YEAR
2001	\$	О
2002	\$	0
2003	\$	O
2004	\$	0
2005	\$	2,100,000
2006	\$_	0
TOTAL COSTS	\$	2,100,000

PROJECT DESCRIPTION

This proposed program involves working with various cities in the District's service area to replace old water mains which are deteriorating. The District plans to replace the existing water mains in conjunction with City Street Replacement Programs. Some of the streets included in this project include John Street, Forest Street, and Short John. Working together with Cities saves the District restoration cost and coordinates our work with the street work. This program is designed to replace existing 4", 6" or 8" unlined cast iron water mains, which the District has experienced some problems with. These funds are part of the District's proposed program designed to replace or rehabilitate 1% of the District's distribution system annually. Other funding sources will be the Operation Capital Budget for main replacement and the Operations & Maintenance Budget for main rehabilitation.

MA	APS/GRAPHICS
N/A	A



CAPITAL ITEM NAME Pelly Road, from Ky. 17 to Senour Road

Engineering and Distribution Project

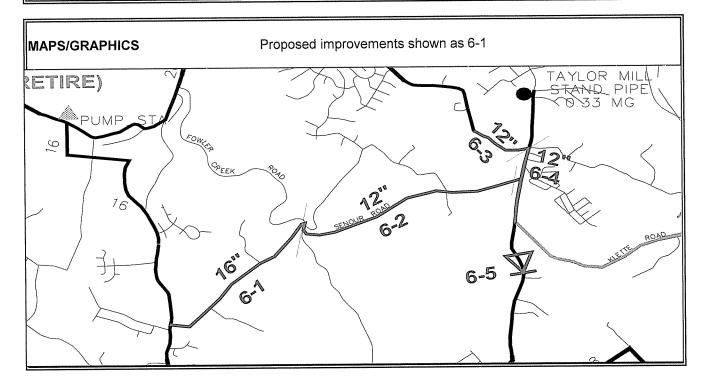
FUNDING S	OURCE	
\$	400,000	2005 BAN
\$	400,000	Total Cost

ви	DGET BY \	/EAR
2001	\$	o
2002	\$	0
2003	\$	0
2004	\$	400,000
2005	\$	0
2006	\$	0
TOTAL COSTS	\$	400,000

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION (184-135)

The proposed project involves constructing a new 16 inch water main along Pelly Road from Ky. 17 to Senour Road, Independence, Kenton County, Kentucky. The length of this project is approx. 2,500 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$400,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to support existing water systems. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Senour Road, from Pelly to existing 8"

Engineering and Distribution Project

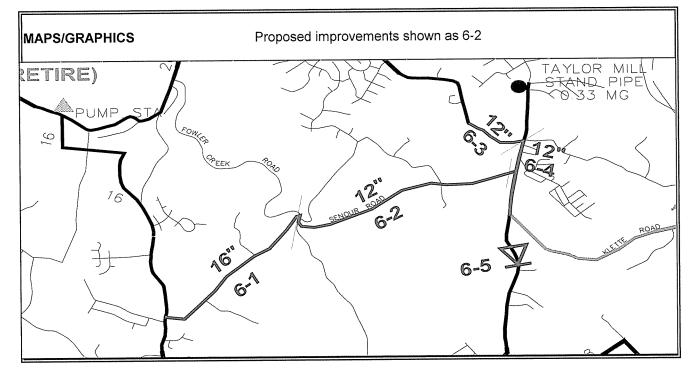
FUNDING S	OURCE	
\$	165,500	2005 BAN
\$	165,500	Total Cost
		!

BU	DGET B	Y YEAR
2001	\$	o
2002	\$	0
2003	\$	0
2004	\$	165,500
2005	\$	0
2006	\$	0
TOTAL COSTS	\$	165,500

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION (184-137)

The proposed project involves constructing a new 12 inch water main along Senour Road from Pelly Road to existing 8", Independence, Kenton County, Kentucky. The length of this project is approx. 1,400 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$165,500. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME New Central Facility

Administration

FUNDING S	OURCE	
\$	1,500,000	Bond 2003
\$	3,650,000	2004 BAN
\$	4,600,000	2005 BAN
	9,750,000	Total

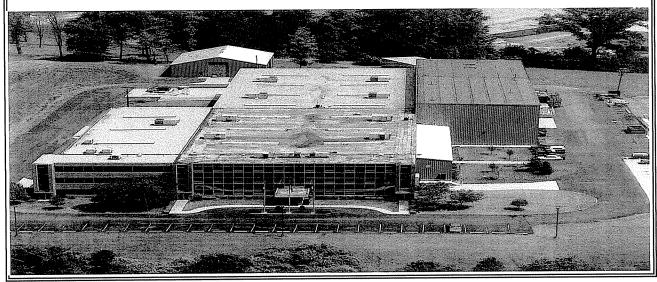
PROJECT TYPE: Office/Warehouse Facility

BU	DGET BY	YEAR
2001	\$	0
2002	\$	o
2003	\$	1,500,000
2004	\$	3,650,000
2005	\$	4,600,000
2006	\$_	0
TOTAL COSTS	\$	9,750,000

PROJECT DESCRIPTION (184-305)

The District purchased the old "Cincinnati Gear" building and land for a new central facility to combine all District existing facilities except for the treatment plants. The purchase of the building and land was \$4,900,000 with an estimated remodel cost of \$4,600,000. Plans for the remodeling are currently under design.

MAPS/GRAPHICS





Standby Generator at Ohio River Pump Station 1

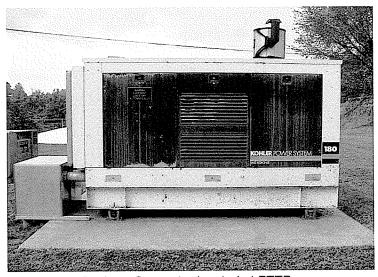
Water Quality and Production Project

PROJECT TYPE: Pump Station Upgrade

BUDGET BY YEAR			
2005		\$	95,000
2006			1,405,000
TOTAL COSTS	\$		1,500,000

PROJECT DESCRIPTION

The Ohio River Pump Station (ORPS) supplies raw water to the Fort Thomas Treatment Plant (FTTP). Because water flows by gravity to the FTTP from the raw water reservoirs and then by gravity from the FTTP to parts of the distribution system, and because the FTTP has a generator, a generator at the ORPS will be valuable in that it will allow us to keep water flowing to many customers in the face of an area-wide power outage. This back-up generator will only power one or possibly two pumps. The cost of a generator sized to power the entire ORPS is not cost effective. This back-up generator was recommended in the District's 2003 "Vulnerability Assessment".



Back-up Generator located at FTTP

PROJECT TYPE: Plant Upgrade



UV Disinfection at the Fort Thomas Treatment Plant

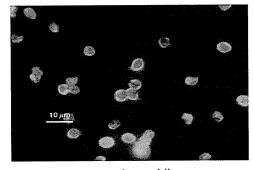
Water Quality and Production Project

FUNDING SC	OURCE	
\$	500,000	BAN 2005
\$	3,500,000	BAN 2006
	\$ 4,000,000	

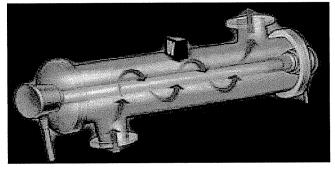
BUDGET BY Y	EAR
2005	500,000
2006	3,500,000
TOTAL COSTS \$	4,000,000

PROJECT DESCRIPTION

The Fort Thomas Treatment Plant (FTTP) supplies water to about 80% of NKWD customers. Evaluations of FTTP finished water have shown that NKWD will experience difficulty meeting future, more stringent regulations. The ability of UV to inactivate microbiological pathogens such as cryptosporidium, giardia and viruses while minimizing the formation of disinfection byproducts makes it an attractive technology to NKWD. It retrofits easily into existing plants, is environmentally friendly because it does not use chemicals, does not produce byproducts and has low capital and operating costs. UV is also an inexpensive process to add CT (contact time) in a treatment plant, which is required by the Kentucky Division of Water. The first potable water UV application was approved by the Kentucky Division of Water in 2004 in Shelbyville.



cryptosporidium



UV reactor

PROJECT TYPE: Plant Upgrade

Taylor Mill Treatment Plant Backwash Handling System

Water Quality and Production Project

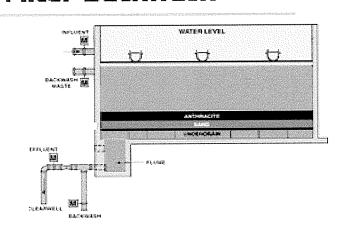
FUNDING SOURCE		
\$	1,389,000	BAN 2005/2006
\$	1,389,000	Total Cost

BUDGET BY YEAR			
2005	\$	200,000	
2006		1,189,000	
TOTAL COSTS	\$	1,389,000	

PROJECT DESCRIPTION

During the water treatment process, sedimentation basins and filters collect dirt and must then be cleaned by flushing. From 1955 to 1995, solids from the Taylor Mill Treatment Plant were discharged to Banklick Creek. With the implementation of new regulations in 1995, NKWD sent any liquid found in the solids to the sanitary sewer. Annual costs for discharge to the sanitary sewer have increased each year reaching a projected high of \$300,000 in 2004. A present worth analysis conducted by Black & Veatch in October, 2002 and again in August, 2004 showed that installing a clarifier to treat the backwash discharge at a 20 year present worth value of \$1,389,000 vs. \$2,884,000 for continuing to discharge to the sanitary sewer would be the best value for the District. Payback for the clarifier installation is estimated at 5 years.

Filter Backwash





CAPITAL ITEM NAME Licking Pike from Trapp Road to Rifle Range Road

Engineering and Distribution Project

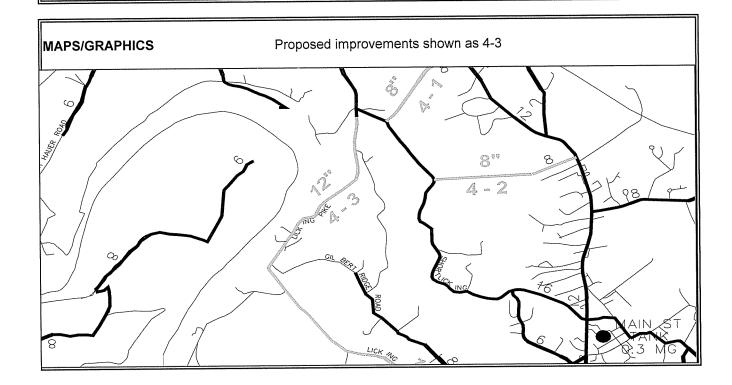
FUNDING S	OURCE	
\$	135,000	2005 BAN
\$	135,000	Total Cost

BU	DGET BY Y	'EAR
2001	\$	0
2002	\$	o
2003	\$	0
2004	\$	o
2005	\$	135,000
2006	\$	0
TOTAL COSTS	\$	135,000

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION (184-0116)

The proposed project involves constructing a new 12 inch water main along Licking Pike from Trapp Road to Rifle Range Road in the City of Alexandria, Campbell County, Kentucky. The length of this project is approx. 9,000 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$135,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.



_Water District

CAPITAL ITEM NAME Licking Pike from Rifle Range Rd. to Sub-District D

Engineering and Distribution Project

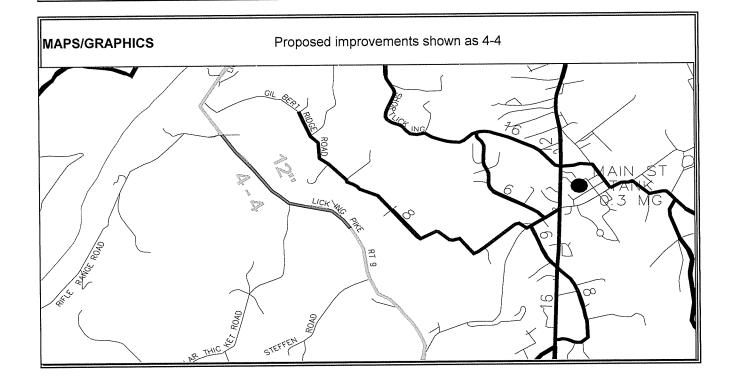
FUNDING S	OURCE	
\$	70,000	2005 BAN
\$	70,000	Total Cost

BU	IDGET BY Y	EAR
2001	\$	0
2002	\$	o
2003	\$	o
2004	\$	0
2005	\$	70,000
2006	\$	0
TOTAL COSTS	\$	70,000

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION (184-0117)

The proposed project involves constructing a new 12 inch water main along Licking Pike from Rifle Range Road to Sub-District D Project, Alexandria, Campbell County, Kentucky. The length of this project is approx. 8,000 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$70,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Mains into Unserved Areas 2004 (Campbell County)

Engineering and Distribution Project

FUNDING S	OURCE	
\$	250,000	2005 BAN
\$	250,000	Total Cost

BUDGET BY YEAR				
2001	\$	o		
2002	\$	0		
2003	\$	0		
2004	\$	0		
2005	\$	250,000		
2006	\$	0		
TOTAL COSTS	\$	250,000		

PROJECT TYPE: Water Main Extension

PROJECT DESCRIPTION

These funds will be utilized to help design and upgrade water mains into unserved areas. The total project funding may include these funds along with grant funds, county funds and surcharges.

	MAPS/GRAPHICS
	N/A
-	

Northern Kentucky

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CAPITAL ITEM NAME Mains into Unserved Areas 2005 (Kenton County)

Engineering and Distribution Project

FUNDING S	OURCE	
\$	250,000	2005 BAN
\$	250,000	Total Cost

PROJECT TYPE	: Water Main	Extension
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ВИ	IDGE	ГВҮ	YEAR
2001		\$	o
2002		\$	0
2003		\$	o
2004		\$	o
2005		\$	250,000
2006		\$	0
TOTAL COSTS	\$		250,000

PROJECT DESCRIPTION

These funds will be utilized to design and upgrade water mains into unserved areas. The total project funding may include these funds along with grant funds, county funds and surcharges.

MAPS/GRAPHICS

N/A

PROJECT TYPE: Meter Change Out



CAPITAL ITEM NAME Newport Meter Change-Out

Customer Service Project

FUNDING S	OURCE 800,000	2005 BAN
	800,000	Total Cost
\$	800,000	Total Cost

BU	DG	ET BY YI	EAR
2005		\$	800,000
2006			0
2007		•	0
2008			0
2009			0
TOTAL COSTS	\$		800,000

PROJECT DESCRIPTION

This project encompasses the replacement of approximately 6,500 meters in Newport to AMR or Touchread style meters. Current meters are approximately 20 years old and are demonstrating inaccuracy and a high failure rate. In addition, the current meters utilize an outdated technology, Neptune "Pin-Read" a predecessor of the touch-read systems that is contributing to the high failure rate.

Ripple Creek Pump Station Expansion

Water Quality and Production Project

PROJECT TYPE: Plant and Pump Station Control Upgrade

FUNDING S	OURCE	
\$	160,000	BAN 2005
\$	160,000	Total Cost

BUDGET BY YEAR			
2005		\$	160,000
TOTAL COSTS	\$		160,000

PROJECT DESCRIPTION

This project expands the Ripple Creek pump station through the addition of a third pump which it was designed to accommodate. The third pump will allow the station to meet system demands while providing a back-up pump when two pumps must be run. This project was called for in the July 2001 NKWD "Water Distribution System Master Plan".



Ripple Creek Pump Station

PROJECT TYPE: Plant Upgrade

Taylor Mill Treatment Plant Tube Settler Replacement

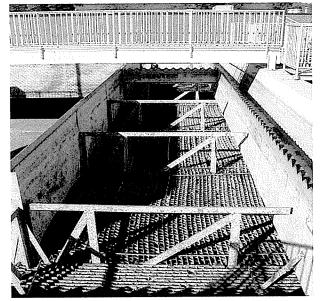
Water Quality and Production Project

FUNDING S	OURCE	
\$	210,000	BAN 2005
\$	210,000	Total Cost

BU	DGET BY YEAR	
2005		210,000
TOTAL COSTS	\$	210,000

PROJECT DESCRIPTION

Tube settlers are 3' plastic tubes that are arranged vertically in the sedimentation basins at water treatment plants to assist in sediment removal. We have saved approximately 15% in chemical costs since tube settlers were installed. The existing tube settlers at the Taylor Mill Treatment Plant are approximately 10 years old which is the normal lifespan for this equipment. We have had trouble with the tube settlers breaking apart and stopping up the sedimentation basin drain lines. New tube settlers are constructed from more resilient material. This project was recommended in the May 2004 "Asset Management Program Final Report".



Existing tube settlers at the Taylor Mill Treatment Plant



CAPITAL ITEM NAME Bristow Rd P.S. to Bristow Rd via Connector Rd.

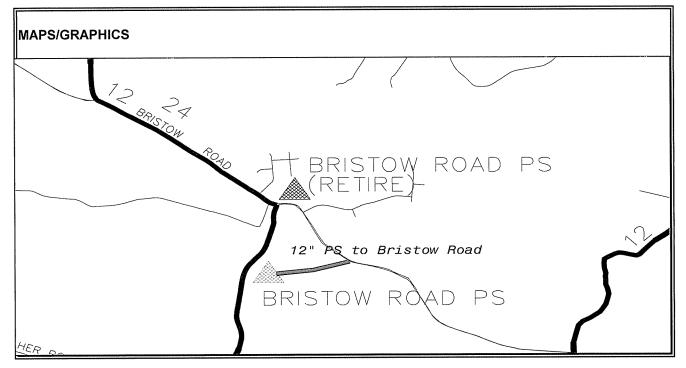
Engineering and Distribution Project

FUNDING SO	DURCE	
\$	90,000	2005 BAN
\$	90,000	Total Cost

BUDGET BY YEAR		
2001	\$	o
2002	\$	0
2003	\$	0
2004	\$	0
2005	\$	90,000
2006	\$	-
TOTAL COSTS	\$	90,000

PROJECT DESCRIPTION (184-0108)

The proposed project involves constructing a new 12 inch water main along the new Banklick Road, Independence, Kenton County, Kentucky. The length of this project is approx.1,540 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$90,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.



Water District

CAPITAL ITEM NAME Narrows Rd (Connecting exist. 16" and 12" mains)

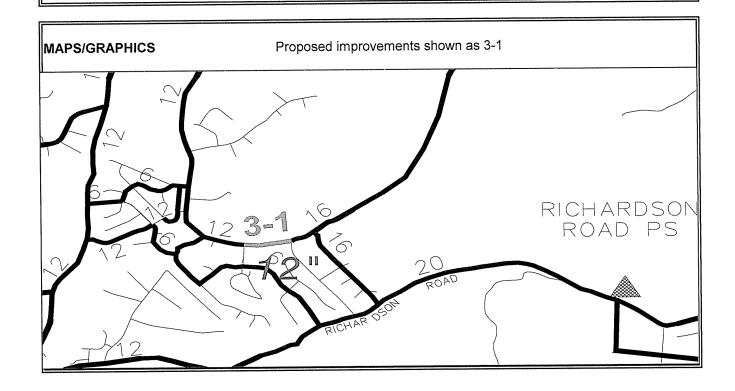
Engineering and Distribution Project

FUNDING SC	OURCE	
\$	96,000	2005 BAN
\$	96,000	Total Cost

BUDGET BY YEAR		
2001	\$	o
2002	\$	o
2003	\$	o
2004	\$	0
2005	\$	96000
2006	\$_	_
TOTAL COSTS	\$	96,000

PROJECT DESCRIPTION (184-0109)

The proposed project involves constructing a new 12 inch water main along Narrows Road from existing 12" to existing 16" in the City of Erlanger, Kenton County, Kentucky. The length of this project is approx. 3,700 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$96,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Four and Twelve Mile Rd.(from Nelson to Hwy 1566)

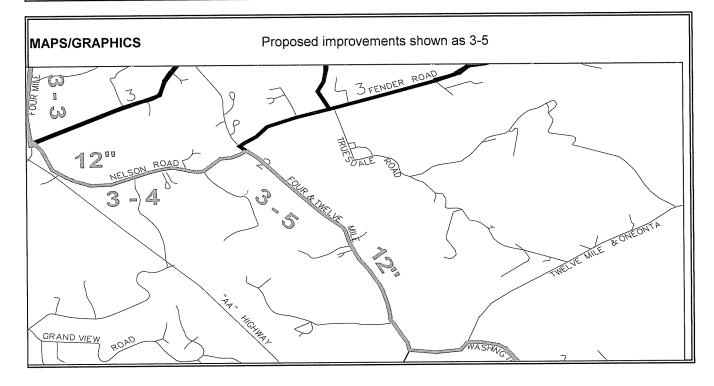
Engineering and Distribution Project

FUNDING S	OURCE	
\$	670,000	2005 BAN
\$	670,000	Total Cost

BUDGET BY YEAR			
2001	\$	0	
2002	\$	o	
2003	\$	0	
2004	\$	0	
2005	\$	670000	
2006	\$		
TOTAL COSTS	\$	670,000	

PROJECT DESCRIPTION (184-0113)

The proposed project involves constructing a new 12 inch water main along Four & Twelve Mile Road from Nelson Road to Ky. Hwy. 1566 in southern Campbell County, Kentucky. The length of this project is approx. 7,700 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$670,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Four Mile Pk. (from Uhl Rd. south to End of Line on 4 Mile)

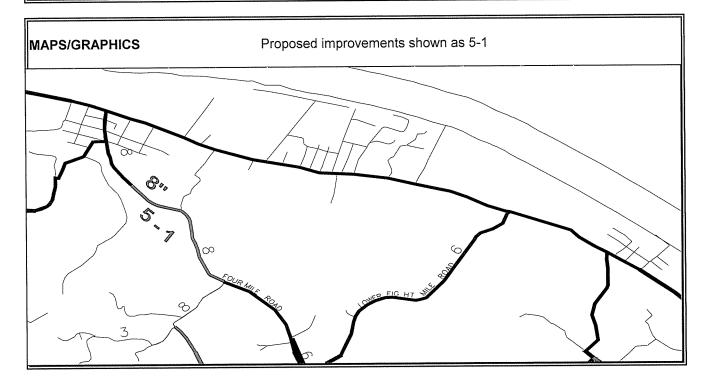
Engineering and Distribution Project

FUNDING S	OURCE	
\$	230,000	2005 BAN
\$	230,000	Total Cost

BUDGET BY YEAR		
2001	\$	0
2002	\$	0
2003	\$	0
2004	\$	0
2005	\$	230000
2006	\$	0
TOTAL COSTS	\$	230,000

PROJECT DESCRIPTION (184-0119)

The proposed project involves constructing a new 8 inch water main along Four Mile Pike to interconnect the existing water mains in Silvergrove, Campbell County, Kentucky. The length of this project is approx. 3,000 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$230,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Hands Pike from Ky. 16 to Edwin Drive

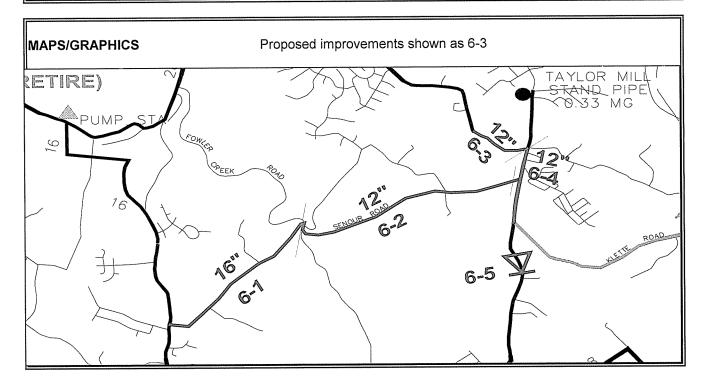
Engineering and Distribution Project

FUNDING S	OURCE	
\$	285,000	2005 BAN
\$	285,000	Total Cost

BUDGET BY YEAR		
2001	\$	0
2002	\$	0
2003	\$	0
2004	\$	0
2005	\$	285,000
2006	\$	0
TOTAL COSTS	\$	285,000

PROJECT DESCRIPTION (184-138)

The proposed project involves constructing a new 12 inch water main along Hands Pike from Ky. 16 to Edwin Drive, Covington, Kenton County, Kentucky. The length of this project is approx. 2,500 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$285,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Ky. 16, from Hands Pike to Klette Road

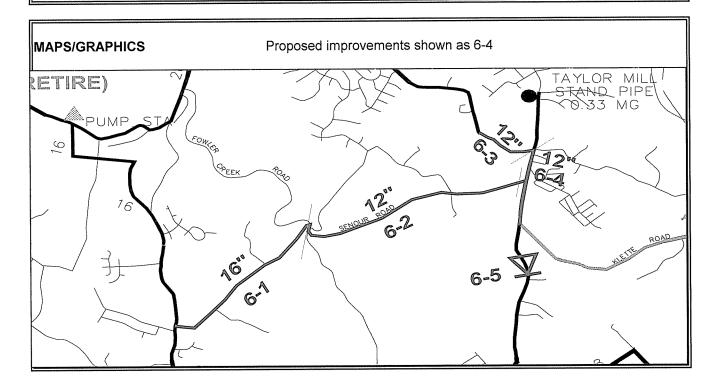
Engineering and Distribution Project

FUNDING S	OURCE	
\$	275,000	2005 BAN
\$	275,000	Total Cost

BUDGET BY YEAR		
2001	\$	0
2002	\$	0
2003	\$	o
2004	\$	0
2005	\$	275,000
2006	\$	0
TOTAL COSTS	\$	275,000

PROJECT DESCRIPTION (184-139)

The proposed project involves constructing a new 12 inch water main along Ky. 16 from Hands Pike to Klette Road, Covington/Independence, Kenton County, Kentucky. The length of this project is approx. 3,000 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$275,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Newport LS/HS Interconnect/Regulated Woodlawn

Engineering and Distribution Project

FUNDING S	OURCE	
\$	520,000	2005 BAN
\$	520,000	Total Cost

PROJECT TYPE: Redundancy Water Main

BUDGET BY YEAR				
2002	\$	o		
2003	\$	0		
2004	\$	0		
2005	\$	520,000		
2006	\$	0		
2007	\$	0		
TOTAL COSTS	\$	520,000		

PROJECT DESCRIPTION (184-143)

This project involves constructing a new transmission water main to interconnect the existing 1017 elevation to the Newport's Low Service 740 elevation system, Newport Campbell County, Kentucky. This project is designed to strengthen the District's water transmission system and provide some redundancy for the Newport's Low Service area. The District's Master Plan Addendum for Reliability and Redunancy Analyses identified this as a needed improvement.

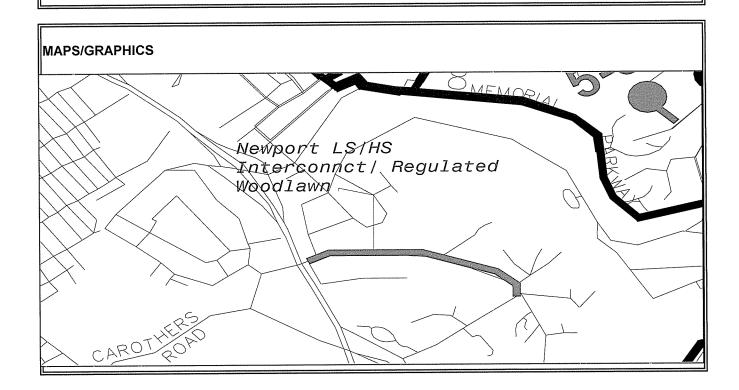


Exhibit R 2006 - 2009 Project List

NKWD Rate Case 2005-00148 Exhibit R Witness: Harrison

Page	ge PSC Northern Kentucky Water District		Tracking	Total Project	Funding
#	#	Projects	Acct#	Cost	Source
		2006 Projects			
1	110	FTTP Ultraviolet Disinfection (Construction)			BAN 2006
2	86	MPTP Chemical Building/Raw Water PS/Transfer Pipe - 3 Projects (Construction)	184-0435	\$4,000,000	
3	84	Standby Generator at ORPS1		\$1,405,000	
4	119	TMTP Backwash Handling System		\$1,189,000	
5	38	Washington Trace Rd. (12Mile Rd to Hwy 1996)	184-0114		BAN 2006
6	40	KY 9 (36" Moock Rd to Newport Steel Entrance)	184-0115	\$1,500,000	
7	51	Gunkel Rd (Upper Eight Mile to Fender Rd)	184-0120		BAN 2006
8	55	Water Main Replacement Program 2006			BAN 2006
9	56	Mains into Unserved Areas 2006			BAN 2006
10	57	U.S.27 From Ripple Creek BPS to E. Alex Pike	184-0133		BAN 2006
11	58	U.S. 27 From E. Alexandria Pike to Main	184-0134		BAN 2006
12	105	Utility Information Management - EMA Recommendations			BAN 2006
13	106	Radio Read Meters for Kenton & Campbell Areas 2006		\$1,300,000	BAN 2006
		Total 2006 Projects		\$21,189,000)

	2007 Projects			
14	8	SCADA Upgrade Phase 3	184-411.502	\$2,400,000 BAN 2007
15		MPTP Filter Rehabilitation		\$530,000 BAN 2007
16	91	Standby Generator at Dudley PS		\$275,000 BAN 2007
17	75	Newport Low Service Interconnect 30"	184-0144	\$750,000 BAN 2007
18		Ky. 547, from Washington St. to Nelson Road	184-0146	\$965,000 BAN 2007
19		Four Mile Pk. (Poplar Rdg. To Upper 8 Mile)	184-0147	\$510,000 BAN 2007
20	79	Dudley Discharge 12" - 30"	184-0148	\$2,800,000 BAN 2007
21	80	Water Main Replacement Program 2007		\$2,100,000 BAN 2007
22	81	Mains into Unserved Areas 2007		\$250,000 BAN 2007
23	107	Radio Read Meters for Kenton & Campbell Areas 2007		\$800,000 BAN 2007
	1.		Total 2007 Projects	\$11,380,000

	2008 Projects				1.1.1
24	95	New Water Tank, Rossford; retire existing Lumley & Rossford Tanks		\$1,000,000	
25	20	US27 from State Rt 824 to Pendleton Co Meter KDOT	184-0033		BAN 2008
26		Low Gap Rd. (Ky9 to Existing Dead End)	184-0056		BAN 2008
27	100	Twelve Mile Rd., KY 10 to KY 1566			BAN 2008
28	101	Year 2008 Water Main Replacement Program		\$2,100,000	
29	103	Mains into Unserved Areas 2008			BAN 2008
30	115	Ky 2043, Banklick Station Road to Ky 16		\$2,400,000	
31	108	Radio Read Meters for Kenton & Campbell Areas 2008			BAN 2008
		Total 2008 Proj	ects	\$7,962,000	

		2009 Projects			
32	111	FTTP Post-Filtration GAC (Part 1)		\$1,000,000	BAN 2009
33		Standby Generator at TMTP PS		\$170,000	BAN 2009
34		Ky 536, US 27 to Pond Creek Road - 12"		\$1,990,000	BAN 2009
35		Interconnect 1010/1017 12"			BAN 2009
36	116	Year 2009 Water Main Replacement Program		\$2,100,000	BAN 2009
37		Mains into Unserved Areas 2009		\$250,000	BAN 2009
38	109	Radio Read Meters for Kenton & Campbell Areas 2009		\$800,000	BAN 2009
			Fotal 2009 Projects	\$6,810,000	

PROJECT TYPE: Plant Upgrade

UV Disinfection at the Fort Thomas Treatment Plant

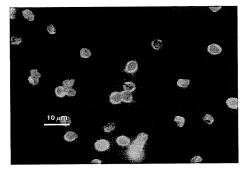
Water Quality and Production Project

FUNDING S	OURCE	
\$	500,000	BAN 2005
\$	3,500,000	BAN 2006
\$	4,000,000	Total Cost

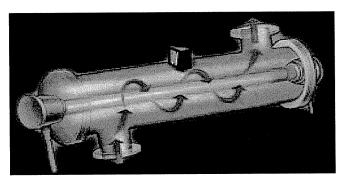
BUDGET BY YEAR	
2005	500,000
2006	3,500,000
TOTAL COSTS \$	4,000,000

PROJECT DESCRIPTION

The Fort Thomas Treatment Plant (FTTP) supplies water to about 80% of NKWD customers. Evaluations of FTTP finished water have shown that NKWD will experience difficulty meeting future, more stringent regulations. The ability of UV to inactivate microbiological pathogens such as cryptosporidium, giardia and viruses while minimizing the formation of disinfection byproducts makes it an attractive technology to NKWD. It retrofits easily into existing plants, is environmentally friendly because it does not use chemicals, does not produce byproducts and has low capital and operating costs. UV is also an inexpensive process to add CT (contact time) in a treatment plant, which is required by the Kentucky Division of Water. The first potable water UV application was approved by the Kentucky Division of Water in 2004 in Shelbyville.



cryptosporidium



UV reactor

Exhibit R - 2006 PSC REF #86



Memorial Parkway Treatment Plant Chemical Building Replacement

Water Quality and Production Project

PROJECT TYPE: Water Treatment Plant Upgrade

FUNDING S	OURCE	
\$	500,000	BAN 2005
\$	4,000,000	BAN 2006
		Total Cost
		•

BU	DGET	BY YEAR	
2005		\$	500,000
2006		\$	4,000,000
TOTAL COSTS	\$		4,500,000

PROJECT DESCRIPTION

NKWD has commissioned 5 studies since 1999 that evaluated the condition of the Memorial Parkway treatment plant. All of the studies describe and detail the poor condition of the chemical building in particular. The building was designed for dry chemical storage and does not meet the present required treatment which includes 10 liquid chemicals. There is inadequate chemical containment, the feed equipment is out of date and the building has structural deficiencies. On June 1, 2004, NKWD hired CH2MHill to propose 4 options to address the chemical building deficiencies. This study is being finalized and reviewed by staff with an an early 2005 recommendation to the Board planned. This project also includes some modifications to the reservoir pumping station and pipework.





Standby Generator at Ohio River Pump Station 1

Water Quality and Production Project

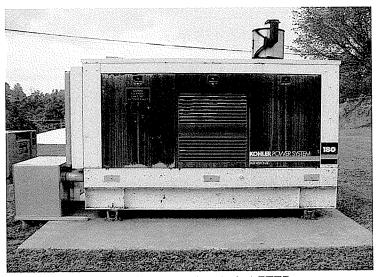
FUNDING S	SOURCE	
\$	1,500,000	BAN 2005/2006
\$	1,500,000	Total Cost

PROJECT TYPE: Pump Station Upgrade

BUDGET BY YEAR			
2005		\$	95,000
2006			1,405,000
TOTAL COSTS	\$		1,500,000

PROJECT DESCRIPTION

The Ohio River Pump Station (ORPS) supplies raw water to the Fort Thomas Treatment Plant (FTTP). Because water flows by gravity to the FTTP from the raw water reservoirs and then by gravity from the FTTP to parts of the distribution system, and because the FTTP has a generator, a generator at the ORPS will be valuable in that it will allow us to keep water flowing to many customers in the face of an area-wide power outage. This back-up generator will only power one or possibly two pumps. The cost of a generator sized to power the entire ORPS is not cost effective. This back-up generator was recommended in the District's 2003 "Vulnerability Assessment".



Back-up Generator located at FTTP

PROJECT TYPE: Plant Upgrade



Taylor Mill Treatment Plant Backwash Handling System

Water Quality and Production Project

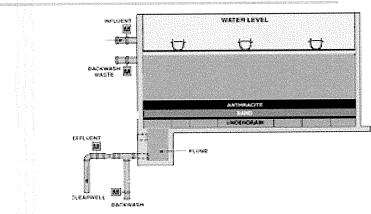
FUNDING SOURCE		
\$	1,389,000	BAN 2005/2006
\$	1,389,000	Total Cost

BUDGET BY YEAR			
2005		\$	200,000
2006			1,189,000
TOTAL COSTS	\$		1,389,000

PROJECT DESCRIPTION

During the water treatment process, sedimentation basins and filters collect dirt and must then be cleaned by flushing. From 1955 to 1995, solids from the Taylor Mill Treatment Plant were discharged to Banklick Creek. With the implementation of new regulations in 1995, NKWD sent any liquid found in the solids to the sanitary sewer. Annual costs for discharge to the sanitary sewer have increased each year reaching a projected high of \$300,000 in 2004. A present worth analysis conducted by Black & Veatch in October, 2002 and again in August, 2004 showed that installing a clarifier to treat the backwash discharge at a 20 year present worth value of \$1,389,000 vs. \$2,884,000 for continuing to discharge to the sanitary sewer would be the best value for the District. Payback for the clarifier installation is estimated at 5 years.







CAPITAL ITEM NAME Washington Trace Rd.(fromTwelve Mile Rd to Hwy. 1996)

Engineering and Distribution Project

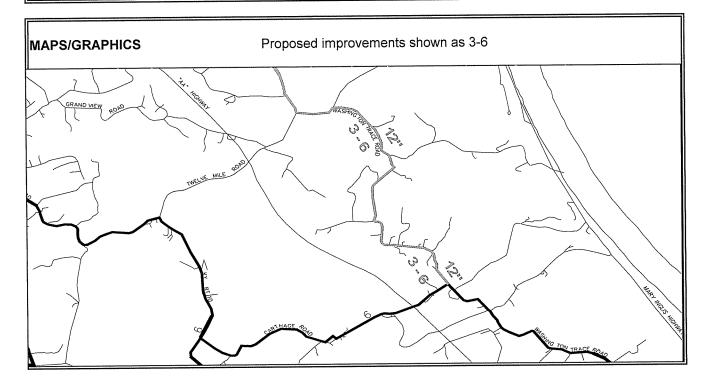
SOURCE	
1,245,000	2006 BAN
1,245,000	Total Cost
	1,245,000

BUDGET BY YEAR		
2001	\$	0
2002	\$	0
2003	\$	0
2004	\$	0
2005	\$	0
2006	\$_	1,245,000
TOTAL COSTS	\$	1,245,000

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION (184-0114)

The proposed project involves constructing a new 12 inch water main along Washington Trace Road from Twelve Mile Road to Hwy.1996 in Campbell County, Kentucky. The length of this project is approx. 14,300 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$1,245,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME KY 9 (30" main from Moock Rd. to Newport Steel entrance)

Engineering and Distribution Project

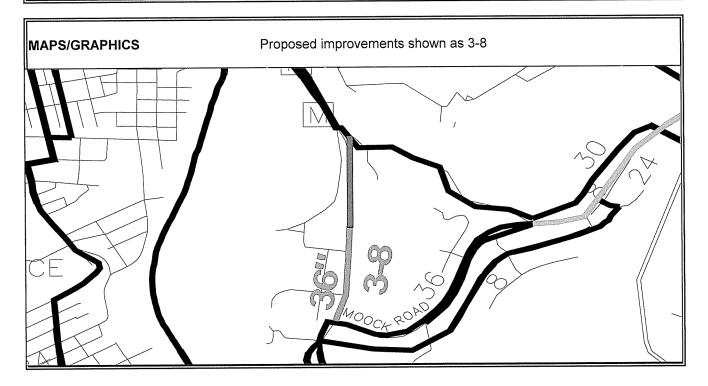
FUNDING :	SOURCE	
\$	1,500,000	2006 BAN
\$	1,500,000	Total Cost

BUDGET BY YEAR		
2001	\$	0
2002	\$	0
2003	\$	0
2004	\$	0
2005	\$	0
2006	\$	1,500,000
TOTAL COSTS	\$	1,500,000

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION (184-0115)

The proposed project involves constructing a new 36 inch water main along Ky. 9 from Moock Road to existing 30" water main in the City of Wilder, Campbell County, Kentucky. The length of this project is approx. 4,000 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$1,500,000. This project is designed to strengthen and improve the transmission system. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Gunkel Rd. (from Upper Eight Mile Rd. to Fender Rd.)

Engineering and Distribution Project

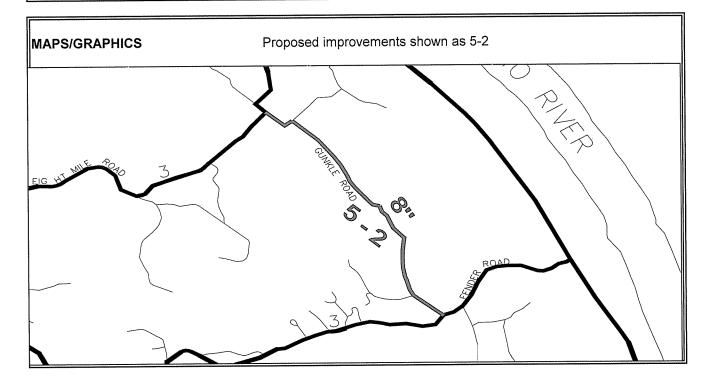
FUNDING S	OURCE	
\$	500,000	2006 BAN
\$	500,000	Total Cost

BU	DGET BY	YEAR
2001	\$	o
2002	\$	0
2003	\$	0
2004	\$	o
2005	\$	o
2006	\$	500,000
TOTAL COSTS	\$	500,000

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION (184-0120)

The proposed project involves constructing a new 8 inch water main along Gunkel Road from Eight Mile Road to Fender Road in southern Campbell County, Kentucky. The length of this project is approx. 9,000 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$500,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Water Main Replacement Program 2006

Engineering and Distribution Project

FUNDING :	SOURCE	
\$	2,100,000	2006 BAN
\$	2,100,000	Total Cost

PROJECT TY	PE: Water Main	Replacement
------------	----------------	-------------

BUDGET BY YEAR		
2001	\$	0
2002	\$	0
2003	\$	0
2004	\$	0
2005	\$	0
2006	\$	2,100,000
TOTAL COSTS	\$	2,100,000

PROJECT DESCRIPTION

This proposed program involves working with various cities in the District's service area to replace old water mains which are deteriorating. The District plans to replace the existing water mains in conjunction with City Street Replacement Programs. Working together with Cities saves the District restoration cost and coordinates our work with the street work. This program is designed to replace existing 4", 6" or 8" unlined cast iron water mains, which the District has experienced some problems with. These funds are part of the District's proposed program designed to replace or rehabilitate 1% of the District's distribution system annually. Other funding sources will be the Operation Capital Budget for main replacement and the Operations & Maintenance Budget for main rehabilitation.

М	ΑI	PS	/G	R/	٩P	Н	ICS	

N/A



CAPITAL ITEM NAME Mains into Unserved Areas 2006

Engineering and Distribution Project

FUNDING SOURCE				
\$	250,000	2006 BAN		
\$	250,000	Total Cost		

DDO	IECT	TVPF	Water	Main	Extension	1

ви	DGET BY	/ YEAR
2001	\$	0
2002	\$	0
2003	\$	0
2004	\$	0
2005	\$	0
2006	\$	250,000
TOTAL COSTS	\$	250,000

PROJECT DESCRIPTION

These funds will be utilized to extend water mains into unserved areas. The total project funding may include these funds along with grant funds, county funds and surcharges.

MAPS/GRAPHICS

N/A



CAPITAL ITEM NAME U.S. 27, from Ripple Creek P.S. to E. Alex. Pike

Engineering and Distribution Project

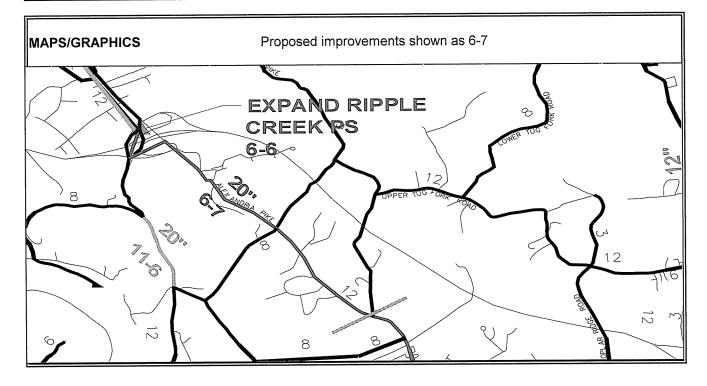
FUNDING SOURCE				
\$	1,700,000	2006 BAN		
\$	1,700,000	Total Cost		
		!		

ви	DGET B	YEAR
2001	\$	0
2002	\$	0
2003	\$	0
2004	\$	0
2005	\$	0
2006	\$	1,700,000
TOTAL COSTS	\$	1,700,000

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION (184-133)

The proposed project involves constructing a new 20 inch water main from the Ripple Creek Pump Station along U.S. 27 to East Alexandria Pike, Alexandria, Campbell County, Kentucky. The length of this project is approx. 11,100 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$1,700,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME U.S. 27, from E. Alex. Pike to Main St.

Engineering and Distribution Project

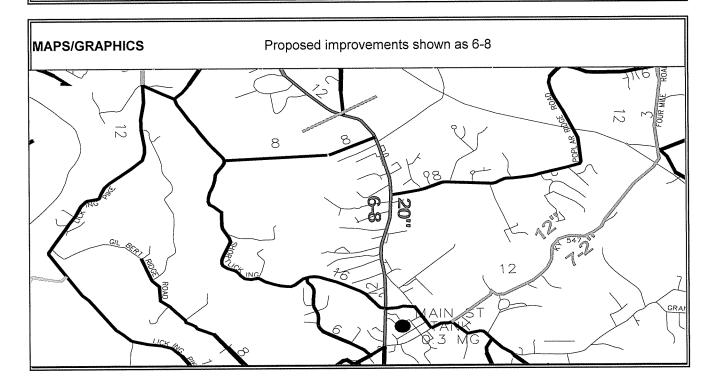
FUNDING SOURCE				
1,500,000	2006 BAN			
1,500,000	Total Cost			
	1,500,000			

ви	DGET BY	YEAR
2001	\$	0
2002	\$	0
2003	\$	0
2004	\$	0
2005	\$	0
2006	\$	1,500,000
TOTAL COSTS	\$	1,500,000

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION (184-134)

The proposed project involves constructing a new 20 inch water main along U.S. 27 from East Alexandria Pike to Main Street, Alexandria, Campbell County, Kentucky. The length of this project is approx. 9,700 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$1,500,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME: I UIM Analysis & Recommendations

Customer Service Project

PROJECT TYPE: UIM Recommedations

FUNDING S	OURCE 1,000,000	BAN 2006
	, ,	
\$	1,000,000	Total Cost

В	JDGET BY	/ YEAR
2005	\$	О
2006	\$	1,000,000
2007	\$	o
2008	\$	0
2009	\$	0
	\$	
TOTAL COSTS	\$	1,000,000

PROJECT DESCRIPTION

This project encompasses the findings and recommendations included in the February 13, 2003 Utility Information Management Needs Assessment study performed by EMA. Twenty recommendations have been proposed to continue the strategic direction established in this brief overview established during the CIS replacement process. Each of the twenty recommendations have a suggested priority level and order of importance. Costs conveyed are rough estimates for completion of each task.



CAPITAL ITEM NAME Kenton & Campbell Meter Change-Out

Customer Service Project

FUNDING S	300,000 1,300,000	2006 BAN
\$	1,300,000	Total Cost

BU	IDGET B	Y YEAR
2005 2006	\$	0
2007	\$	0
2008	\$	0
2009	\$	0
TOTAL COSTS	\$	1,300,000

PROJECT TYPE: Meter Change Out

PROJECT DESCRIPTION

The project encompasses the systematic replacement of existing water meters with an AMR system.



SCADA UPGRADE PHASE 3

Water Quality and Production Project

PROJECT TYPE: Plant and Pump Station Control Upgrade

FUNDING	SOURCE	
\$	2.4 million	BAN 2007
\$	2.4 million	Total Cost

DGET	BY YEAR	
	\$	1,200,000
	\$	1,200,000
\$		2,400,000
		\$

PROJECT DESCRIPTION

This project provides for the upgrade of the plant computer control sytem by incorporating automatic feed of potassium permanganate, copper, and carbon at FTTP. The project includes the construction of a new copper sulfate/potassium permanganate chemical building at the head of the north reservoir to replace the current 1881 building that has reached the end of its useful life. The project adds an additional carbon silo to the current one at the head of the north reservoir in order to provide additional storage capacity for use in emergency spill conditions on the Ohio River. The copper sulfate, potassium permanganate and carbon feed system will be tied into the existing master control system and will allow plant operators to monitor and control these systems from any of the 3 water treatment plants. The project also ties in several key valves in the 3 water plants and the distribution system in order to provide for quick shutdown in cases of main breaks and provides for the integration of the Maintenance Software System into the master control system.

PSC REF #88



Memorial Parkway Treatment Plant Filter Rehabilitation

Water Quality and Production Project

PROJECT	TTYPE:	Plant Upgrade

FUNDING S	OURCE	
\$	530,000	BAN 2007
\$	530,000	Total Cost

ви	DGET BY YEAR	
2007		530,000
TOTAL COSTS	\$	530,000

PROJECT DESCRIPTION

The Memorial Parkway Treatment Plant (MPTP) has 6 filters. Three of these filters were rebuilt in 2002 with new media, under drains, and an air scour system for cleaning. The other 3 filters have not been rebuilt and are currently not being used. This project will rebuild the final 3 filters to NKWD standards and will provide us with a backup to the 3 filters that are in service and with the ability to treat 20 MGD in the future. This project was recommended in the May 2004 "Asset Management Program Final Report".

PROJECT TYPE: Pump Upgrade



Standby Generator at Dudley Pump Station

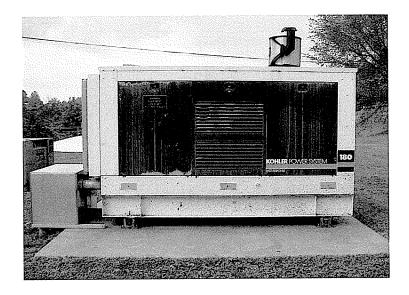
Water Quality and Production Project

FUNDING S	OURCE	
\$	275,000	BAN 2007
\$	275,000	Total Cost

BU	DGET BY YEAR	
2007		275,000
TOTAL COSTS	\$	275,000

PROJECT DESCRIPTION

The Dudley Pump Station (DPS) supplies finished water to about 45% of our customers. The station houses 8 pumps ranging in size from producing 3.4 to 8.6 million gallons per day. The station also houses a sodium hypochlorite feed system which allows us to add disinfectant into the system at that location to keep the chlorine residual at an acceptable level. Although it is not cost-effective to try to provide emergency power through a generator to all 8 pumps located at the DPS, a generator that can supply two pumps will assist us in maintaining some water flow into our system in case of a long term electrical outage. This back-up generator was recommended in the District's 2003 "Vulnerability Assessment".



Back up generator located at Fort Thomas Treatment Plant.



CAPITAL ITEM NAME Newport Low Service Interconnect to 30"

Engineering and Distribution Project

PROJECT TYPE: Redundancy Water Main

BUDGET BY YEAR		
2002	\$	0
2003	\$	0
2004	\$	0
2005	\$	0
2006	\$	0
2007	\$	750,000
TOTAL COSTS	\$	750,000

PROJECT DESCRIPTION (184-144)

This project involves constructing a new transmission water main to interconnect the existing 763 elevation 30" water main to the Newport's Low Service 740 elevation system, Newport Campbell County, Kentucky. This project is designed to strengthen the District's water transmission system and provide some redundancy for the Newport's Low Service area. The District's Master Plan Addendum for Reliability and Redunancy Analyses identified this as a needed improvement.





CAPITAL ITEM NAME Ky. 547 (from Washington St. to Nelson Rd. @ 4 Mile Pike)

Engineering and Distribution Project

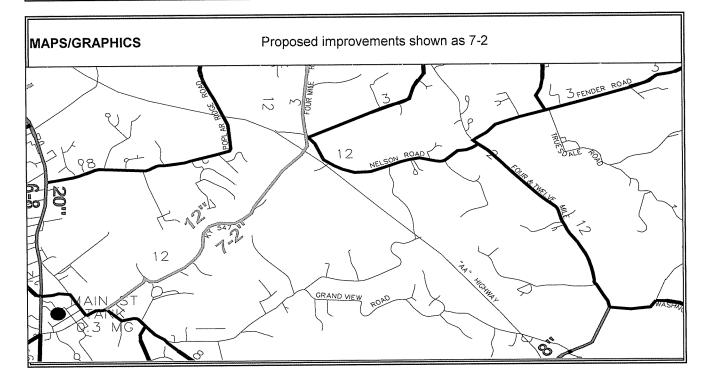
FUNDING S	OURCE	
\$	965,000	2007 BAN
\$	965,000	Total Cost

BU	DGET B	Y YEAR
2002	\$	o
2003	\$	0
2004	\$	o
2005	\$	0
2006	\$	0
2007	\$	965,000
TOTAL COSTS	\$	965,000

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION (184-146)

The proposed project involves constructing a new 12 inch water main along Ky. 547 from Washington Street at Main Street in downtown Alexandria to Nelson Road at Four Mile Pike in Campbell County, Kentucky. The length of this project is approx. 10,600 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$965,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Four Mile Pk. (from Poplar Rdg. Rd to Upper 8 Mile)

Engineering and Distribution Project

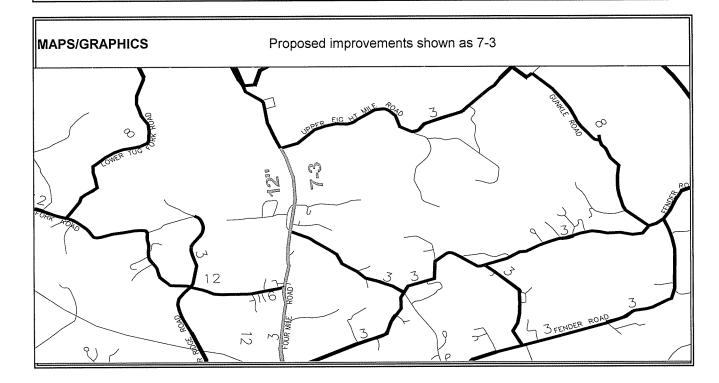
510,000 2007 BAN \$ 510,000 Total Cost

PROJECT TYPE: Hydaulic Master Plan /Replacement

BUDGET BY YEAR		
2002	\$	0
2003	\$	0
2004	\$	0
2005	\$	0
2006	\$	0
2007	\$	510,000
TOTAL COSTS	\$	510,000

PROJECT DESCRIPTION (184-147)

The proposed project involves constructing a new 12 inch water main along Four Mile Pike from Poplar Ridge to Upper 8 Mile Road in Campbell County, Kentucky. The length of this project is approx. 5,600 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$510,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is also designed to replace the existing 6" water main along Four Mile Pike, support other existing water mains, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Dudley 1080 Redundancy Water Main

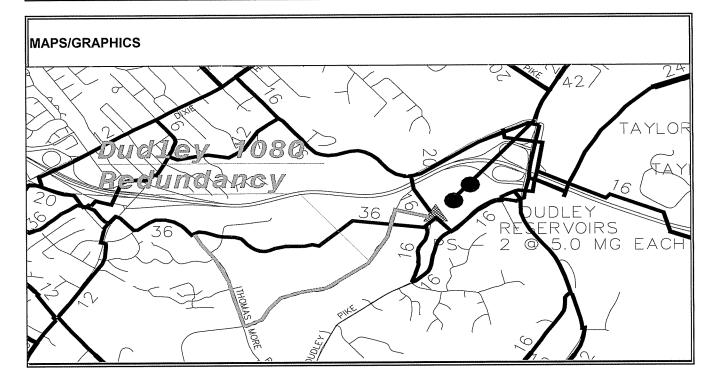
Engineering and Distribution Project

PROJECT TYPE: Redundancy Water Main

BUDGET BY YEAR		
2002	\$	0
2003	\$	0
2004	\$	0
2005	\$	o
2006	\$	o
2007	\$.	2,800,000
TOTAL COSTS	\$	2,800,000

PROJECT DESCRIPTION (184-148)

This project involves constructing a new 30" water main through the City of Crestview Hills, Kenton County, Kentucky. This project is designed to strengthen the District's water transmission system and provide some redundancy for the District's existing 36" water main. The District's Master Plan Addendum for Reliability and Redunancy Analyses identified this as a needed improvement.





CAPITAL ITEM NAME Water Main Replacement Program 2007

Engineering and Distribution Project

FUNDING S	SOURCE	
\$	2,100,000	2007 BAN
\$	2,100,000	Total Cost

PROJECT TYPE: Water Main Replacement

BU	DGET BY	YEAR
2002	\$	o
2003	\$	o
2004	\$	o
2005	\$	o
2006	\$	0
2007	\$_	2,100,000
TOTAL COSTS	\$	2,100,000

PROJECT DESCRIPTION

This proposed program involves working with various cities in the District's service area to replace old water mains which are deteriorating. The District plans to replace the existing water mains in conjunction with City Street Replacement Programs. Working together with Cities saves the District restoration cost and coordinates our work with the street work. This program is designed to replace existing 4", 6" or 8" unlined cast iron water mains, which the District has experienced some problems with. These funds are part of the District's proposed program designed to replace or rehabilitate 1% of the District's distribution system annually. Other funding sources will be the Operation Capital Budget for main replacement and the Operations & Maintenance Budget for main rehabilitation.

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N/A



CAPITAL ITEM NAME Mains into Unserved Areas 2007

Engineering and Distribution Project

FUNDING S	OURCE	
\$	250,000	2007 BAN
\$	250,000	Total Cost

BU	DGET BY YEA	۸R
2002	\$	0
2003	\$	0
2004	\$	0
2005	\$	o
2006	\$	o
2007	\$	250,000
TOTAL COSTS	\$	250,000

PROJECT TYPE: Water Main Extension

PROJECT DESCRIPTION

These funds will be utilized to extend water mains into unserved areas. The total project funding may include these funds along with grant funds, county funds and surcharges.

	MAPS/GRAPHICS
	N/A
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CAPITAL ITEM NAME Kenton & Campbell Meter Change-Out

Customer Service Project

FUNDING SO	OURCE 800,000	2007 BAN
<u></u>	800,000	Total Cost
\$	800,000	Total Cost

PROJECT TYPE: Meter Change Out

BU	DGE	T BY YE	EAR
2005		\$	0
2006		\$	0
2007		\$	800,000
2008		\$	0
2009		\$	0
TOTAL COSTS	\$	***************************************	800,000

PROJECT DESCRIPTION

The project encompasses the systematic replacement of existing water meters with an AMR system.



CAPITAL ITEM NAME New Water tower, Rossford: retire Lumley & Rossford Tks.

Engineering and Distribution Project

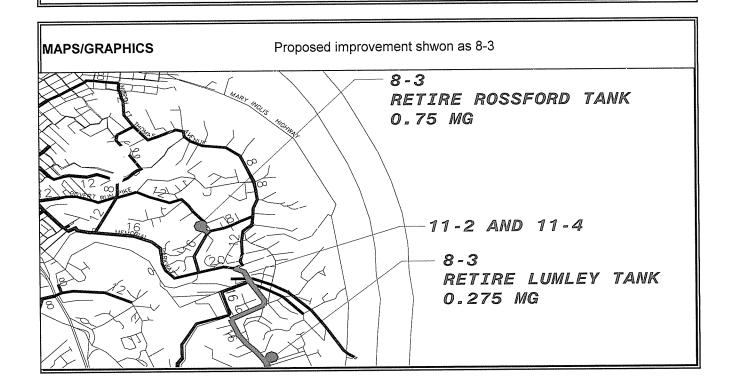
FUNDING S	SOURCE	
\$	1,000,000	BAN 2008
\$	1,000,000	Total Cost

BU	DGET BY	YEAR
2004	\$	0
2005	\$	0
2006	\$	0
2007	\$	0
2008	\$	1,000,000
2009	\$.	0
TOTAL COSTS	\$	1,000,000

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION

Construction of a new elevated storage tank (750,000 gallons) to replace Rossford (300,000 gallons) and Lumley (275,000 gallons) tanks in the City of Ft. Thomas, Campbell County, Kentucky. This project is designed to replace two existing tanks with one larger one which will reduce District maintenance and increase water storage capacities to meet growing needs. The District will need a Certificate of Need for this project. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME U.S. 27 from S.R.824 to Pendelton Co. meter

Proposed project in conjunction with KDOT Road Improvement Project PROJECT TYPE: Hydaulic Master Plan

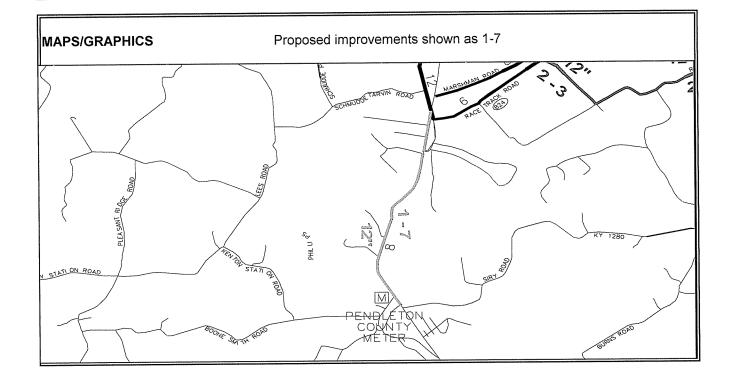
Engineering and Distribution Project

FUNDING SOURCE 2008 BAN 770,000 770,000 **Total Cost**

BU	DGET BY Y	EAR
2004	\$	o
2005	\$	o
2006	\$	0
2007	\$	0
2008	\$	770,000
2009	\$	0
TOTAL COSTS	\$	770,000

PROJECT DESCRIPTION (184-0033)

The proposed project involves constructing a new 12 inch water main along U.S. 27 from Racetrack Road to Pendleton County Meter Pit, southern Campbell County, Kentucky. The length of this project is approx. 10,000 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$770,000. This project will be built with the KDOT road improvement project. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Low Gap Road, (Ky. 9 to existing Dead-end)

Engineering and Distribution Project

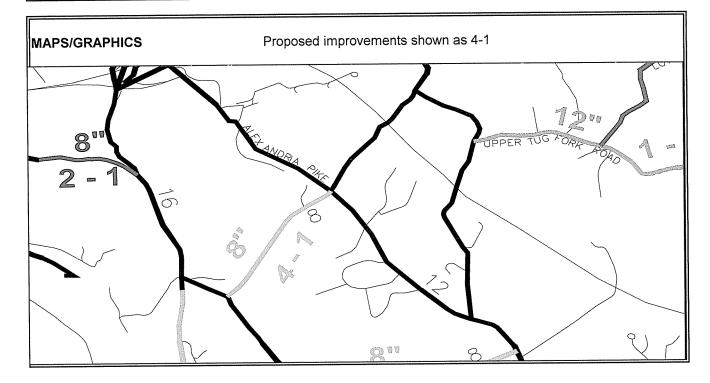
FUNDING S	OURCE	
\$	192,000	2008 BAN
\$	192,000	Total Cost

Ви	IDGET BY YEA	R
2005	\$	o
2006	\$	o
2007	\$	0
2008	\$	192,000
2009	\$	0
2010	\$	0
TOTAL COSTS	\$	192,000

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION (184-0056)

The proposed project involves constructing a new 8 inch water main along Low Gap Road from Ky. 9 to existing water main dead-end in the City of Alexandria, Campbell County, Kentucky. The length of this project is approx. 1,300 LF. No new right-of-ways of easements will be needed. The estimated cost for the project is \$192,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Twelve Mile Road, from Ky. 10 to Ky. 1566

Engineering and Distribution Project

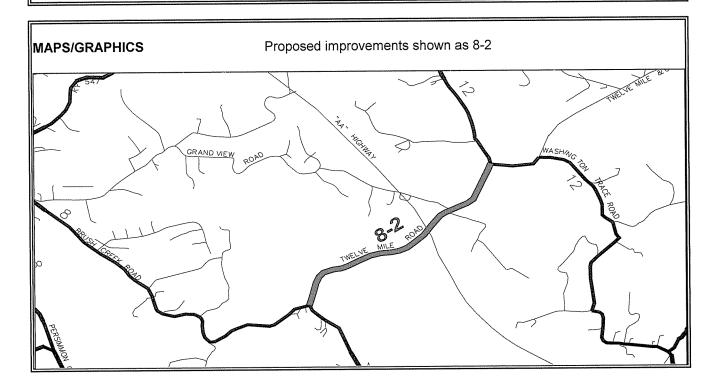
FUNDING S	OURCE	
\$	450,000	2008 BAN
\$	450,000	Total Cost

ви	DGET BY Y	EAR
2003	\$	0
2004	\$	o
2005	\$	0
2006	\$	0
2007	\$	o
2008	\$	450,000
TOTAL COSTS	\$	450,000

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION

The proposed project involves constructing a new 8 inch water main along Twelve Mile Road from Ky. 10 to Ky. 1566 in Campbell County, Kentucky. The length of this project is approx. 8,200 LF. No new right-of-ways of easements should be needed. The estimated cost for the project is \$450,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Water Main Replacement Program 2008

Engineering and Distribution Project

FUNDING COURCE

FUNDING S	SOURCE	
\$	2,100,000	2008 BAN
\$	2,100,000	Total Cost

PROJECT TYPE: Water Main	Replacement
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BU	DGET BY	YEAR
2003	\$	0
2004	\$	0
2005	\$	0
2006	\$	o
2007	\$	0
2008	\$	2,100,000
TOTAL COSTS	\$	2,100,000

PROJECT DESCRIPTION

This proposed program involves working with various cities in the District's service area to replace old water mains which are deteriorating. The District plans to replace the existing water mains in conjunction with City Street Replacement Programs. Working together with Cities saves the District restoration cost and coordinates our work with the street work. This program is designed to replace existing 4", 6" or 8" unlined cast iron water mains, which the District has experienced some problems with. These funds are part of the District's proposed program designed to replace or rehabilitate 1% of the District's distribution system annually. Other funding sources will be the Operation Capital Budget for main replacement and the Operations & Maintenance Budget for main rehabilitation.

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N/A



CAPITAL ITEM NAME Mains into Unserved Areas 2008

Engineering and Distribution Project

FUNDING S	OURCE	
\$	250,000	2008 BAN
\$	250,000	Total Cost

PROJECT	TYPE:	Water Mai	n Extension

BU	DGET BY	YEAR
2003	\$	0
2004	\$	0
2005	\$	0
2006	\$	0
2007	\$	0
2008	\$_	250,000
TOTAL COSTS	\$	250,000

PROJECT DESCRIPTION

These funds will be utilized to extend water mains into unserved areas. The total project funding may include these funds along with grant funds, county funds and surcharges.

MAPS/GRAPHICS
N/A



CAPITAL ITEM NAME KY 2043, Banklick Station Road to KY 16

Engineering and Distribution Project

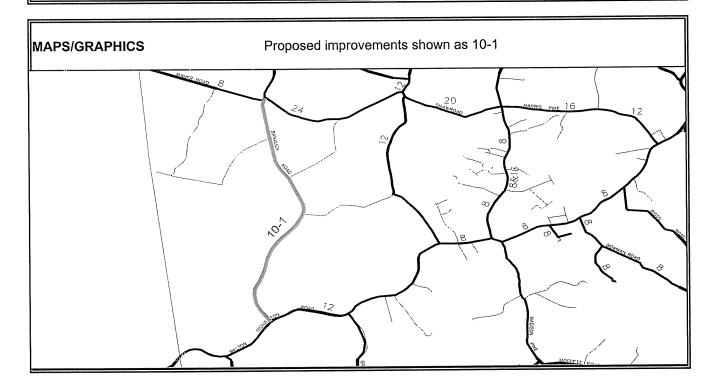
	SOURCE	FUNDING
2008 B	2,400,000	\$
Total C	2,400,000	\$

BUDGET BY YEAR		
2004	\$	0
2005	\$	0
2006	\$	0
2007	\$	0
2008	\$	0
2009	\$	2,400,000
TOTAL COSTS	\$	2,400,000

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION

The proposed project involves constructing a new 24 inch water main along KY 2043 (Banklick Road) from Maher Road to KY 16 in Kenton County, Kentucky. The length of this project is approx. 14,400 LF. No new right-of-ways of easements should be needed. The estimated cost for the project is \$2,400,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to unserved areas, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Kenton & Campbell Meter Change-Out

Customer Service Project

BAN	2008	OURCE 800,000	FUNDING S
l Cost	Total (800,000	\$

BU	DGE.	T BY Y	EAR
		_	_
2005		\$	0
2006		\$	0
2007		\$	0
2008		\$	800,000
2009		\$	0
TOTAL COSTS	\$		800,000

PROJECT TYPE: Meter Change Out

PROJECT DESCRIPTION

The project encompasses the systematic replacement of existing water meters with an AMR system.



FTTP Post-Filtration GAC

Water Quality and Production Project

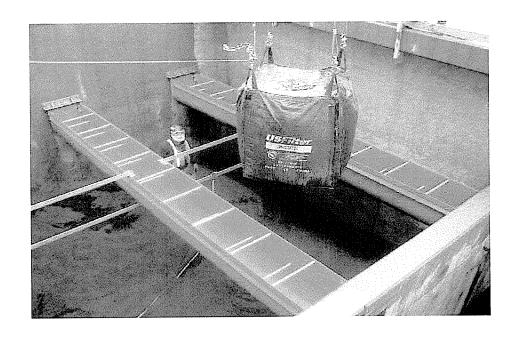
FUNDING SOL	JRCE		
9	5	1,000,000	BAN 2009
9	3	10,000,000	BAN 2010
	5	10,000,000	BAN 2011
	5	21,000,000	
l			

PROJECT TYPE: Water Treatment Plant Upgrade

BUDGET BY YEAR		
2009	\$	1,000,000
2010		10,000,000
2011		10,000,000
TOTAL COSTS	\$	21,000,000

PROJECT DESCRIPTION

Stage 2A of the Disinfection By-Products Rule (DBPR) will become effective 3 years after promulgation which is expected to be in 2005. DBPR Stage 2A will require all water systems to comply with locational running annual average (LRAA) THM and HAA5 maximum contaminant levels of 120 ug\L and 100 ug\L respectively. Stage 2B of the DBPR will become effective six years after the rule's promulgation which is expected to be in 2011. DBPR Stage 2B will require all water systems to comply with LRAA of 80 ug\L and 60 ug\L for THM and HAA5 respectively at revised sampling points in the distribution system. According to the May 2004 "Asset Management Program Final Report": "it will be difficult for the District to (meet DBPR Stage 2B) using current treatment/disinfection practices". Along with nanofiltration, Granular Activated Carbon (GAC) is identified by the EPA as the Best Available Technology to treat THM and HAA5.



PROJECT TYPE: Pump Upgrade



Standby Generator at Taylor Mill Treatment Plant Pump Station

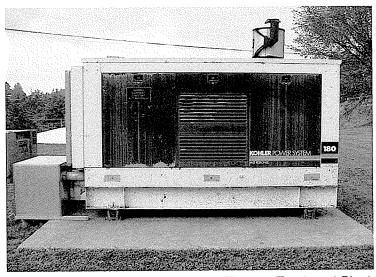
Water Quality and Production Project

FUNDING S	OURCE	
\$	170,000	BAN 2009
\$	170,000	Total Cost

BUDGET BY YEA	R
2009	170,000
TOTAL COSTS \$	170,000

PROJECT DESCRIPTION

The Taylor Mill Treatment Plant Pump Station supplies finished water to about 45% of our customers. The station houses 6 pumps ranging in size from producing 8.1 to 10.0 million gallons per day. Although it is not cost-effective to try to provide emergency power through a generator to all 8 pumps located at the DPS, a generator that can supply two pumps will assist us in maintaining some water flow into our system in case of a long term electrical outage. This back-up generator was recommended in the District's 2003 "Vulnerability Assessment".



Back up generator located at Fort Thomas Treatment Plant.



CAPITAL ITEM NAME KY 536, U.S. 27 to Pond Creek Road - 12"

Engineering and Distribution Project

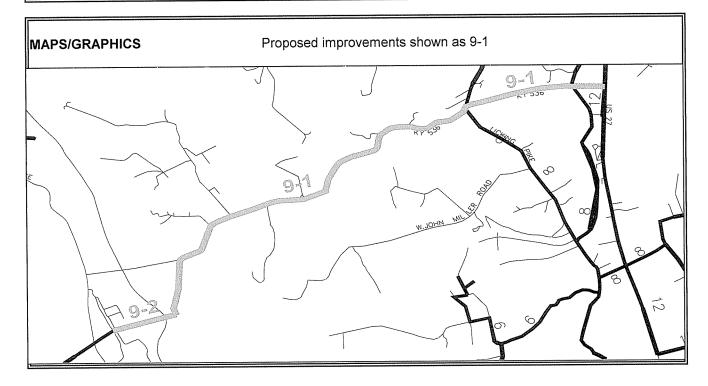
FUNDING S	SOURCE	
\$	1,990,000	2009 BAN
\$	1,990,000	Total Cost

BUDGET BY YEAR		
2004	\$	0
2005	\$	0
2006	\$	0
2007	\$	0
2008	\$	0
2009	\$_	1,990,000
TOTAL COSTS	\$	1,990,000

PROJECT TYPE: Hydaulic Master Plan

PROJECT DESCRIPTION

The proposed project involves constructing a new 12 inch water main along KY 536 (Pond Creek Road) from U.S. 27 to KY 1936 (Pond Creek Road) in Campbell County, Kentucky. The length of this project is approx. 17,300 LF. No new right-of-ways of easements should be needed. The estimated cost for the project is \$1,990,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to extend water service to additional customers, support existing water systems, improve water quality, and improve fire protection in the area. The District's Master Plan identified this as a needed hydraulic improvement.





CAPITAL ITEM NAME Interconnect 1010/1017

Engineering and Distribution Project

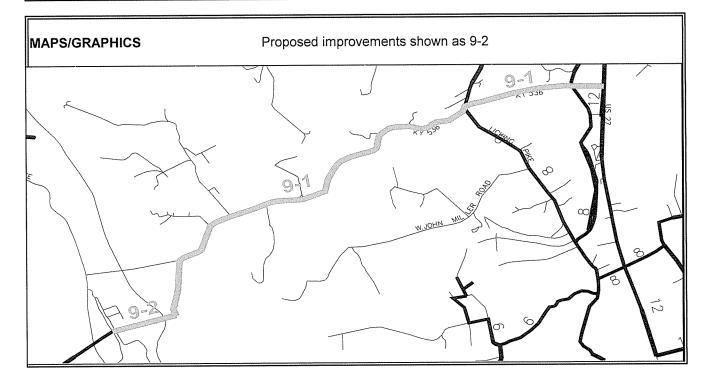
FUNDING S	OURCE	
\$	500,000	2009 BAN
\$	500,000	Total Cost

PROJECT TYPE:	Hydaulic Master Plan
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BUDGET BY YEAR			
2004	\$	O	
2005	\$	0	
2006	\$	0	
2007	\$	0	
2008	\$	0	
2009	\$	500,000	
TOTAL COSTS	\$	500,000	

PROJECT DESCRIPTION

The proposed project involves constructing a new 12 inch water main along KY 536 (Pond Creek Road) from KY 1936 (Pond Creek Road) to Decoursey Pike in Campbell & Kenton Counties, Kentucky. The length of this project is approx. 2,000 LF. New right-of-ways of easements should be needed. The estimated cost for the project is \$500,000. This project is designed to strengthen and improve the transmission system and local distribution system to meet population growth and commercial development needs. This project is designed to support existing water systems, improve water quality, and improve fire protection in the area. This water main will need to cross the Licking River. The District's Master Plan identified this as a needed hydraulic improvement.



CAPITAL ITEM NAME Water Main Replacement Program 2009

Engineering and Distribution Project

PROJECT TYPE: Water Main Replacement

FUNDING SOURCE			
\$	2,100,000	2009 BAN	
\$	2,100,000	Total Cost	
		!	

BUDGET BY YEAR			
2004	\$	o	
2005	\$	0	
2006	\$	0	
2007	\$	0	
2008	\$	0	
2009	\$	2,100,000	
TOTAL COSTS	\$	2,100,000	

PROJECT DESCRIPTION

This proposed program involves working with various cities in the District's service area to replace old water mains which are deteriorating. The District plans to replace the existing water mains in conjunction with City Street Replacement Programs. Working together with Cities saves the District restoration cost and coordinates our work with the street work. This program is designed to replace existing 4", 6" or 8" unlined cast iron water mains, which the District has experienced some problems with. These funds are part of the District's proposed program designed to replace or rehabilitate 1% of the District's distribution system annually. Other funding sources will be the Operation Capital Budget for main replacement and the Operations & Maintenance Budget for main rehabilitation.

I	WAPS/GRAPHICS		
I	1		
ı	N/A		
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CAPITAL ITEM NAME Mains into Unserved Areas 2009

Engineering and Distribution Project

FUNDING SOURCE			
\$	250,000	2009 BAN	
\$	250,000	Total Cost	

PRO I	ECT TY	F· Wa	ter Mai	n Exte	nsion
PROJ		L. VVC	ILCI IAIQI		1131011

BUDGET BY YEAR		
2004	\$	0
2005	\$	0
2006	\$	0
2007	\$	0
2008	\$	0
2009	\$	250,000
TOTAL COSTS	\$	250,000

PROJECT DESCRIPTION

These funds will be utilized to extend water mains into unserved areas. The total project funding may include these funds along with grant funds, county funds and surcharges.

MAPS/GRAPHICS

N/A



CAPITAL ITEM NAME Kenton & Campbell Meter Change-Out

Customer Service Project

FUNDING SO	OURCE 800,000	2009 BAN
\$	800,000	Total Cost

BUE	GET BY YEAR	
2005	\$	0
2006	\$	0

PROJECT TYPE: Meter Change Out

2009 \$ <u>800,000</u>

TOTAL COSTS \$ <u>800,000</u>

20072008

PROJECT DESCRIPTION

The project encomasses the systematic replacement of existing water meters with an AMR system.